

# Telstra Cable Guide

BY PRYSMIAN AUSTRALIA PTY LTD



A brand of the

**Prysmian**  
Group

## Welcome to the 2020 edition of our Telstra Cable Guide

The Telstra guide was first published in 2005. Since then, we've been through some significant changes. Our name changed from Pirelli to Prysmian, we acquired Draka and General Cable, and Prysmian Group has become the world's largest producer of power and telecommunication cables with 112 manufacturing plants, 25 research and development centers and 30,000 employees. We have a presence in more than 50 countries around the globe.

Prysmian has been Telstra's strategic cable partner since 1998 and over that time has made significant investments of more than A\$20M in the Australian production facility in Dee Why NSW. We are continually evolving our products and capabilities to maintain our leadership in telecom cables in the region. With comprehensive local manufacturing, product development, services and logistics backed by global strength, Prysmian is uniquely placed as Telstra's sole strategic supplier of cable. Telstra is one of only a small number of Prysmian's globally strategic customers.

Telstra and Australia's unique conditions drive many of the products we develop. Prysmian and Telstra developed High

Strength - Enhanced (HSe), direct buried cable specifically for Australia's expansive soils. Our successful high fibre density cable, FlexTube®, has been tailored to Telstra's fibre counts and custom engineering requirements. And there are many other examples.

We are committed to providing the necessary technical, installation, safety and practical information required by designers, installers and users of our products in a comprehensive hand book that can easily be used in the field. The most up to date version is always available on-line at [www.prysmiancable.com.au/downloads](http://www.prysmiancable.com.au/downloads)

Please accept this latest edition of the Telstra Cable Guide with our compliments.

Prysmian Australia Pty Ltd proudly manufactures in Australia and operates certified management systems compliant with the requirements of:

- ISO 9001:2015 Quality Management Systems AS/NZS 4801:2001
- Health & Safety Management Systems AS/NZS ISO 45001:2018
- Occupational Health & Safety Management Systems AS/NZS ISO 14001:2016
- Environmental Management Systems



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# Fibre Optic Cables



FIBRE OPTIC CABLES



## SingleSm@rt™ Duct Single Loose-Tube Cable



Single Loose-Tube optical fibre cables designed for installation in ducts. Cable is fully dielectric thus immune to electric shocks or magnetic interferences. The loose-tube contains 12 single mode fibres, laid parallel to a composite glass fibre reinforced plastic (GRP) strength member that provides longitudinal strength (tensile and compressive). The tube is filled with a low viscosity, non-melting gel that prevent the longitudinal passage of moisture along the tube. The cable core is protected from moisture permeation and water penetration by means of a dry water blocking system. Each individual fibre is coloured within the tube for unambiguous identification. The cable is completed by the application of a co-extruded dual layer of polyethylene sheath with an integrally bonded nylon jacket for protection against termite attack with improved cable bending and durability.



# Cable Information

Telstra Material Number	Material Description	Number of Fibres	Nominal Weight (kg/km)	Min. Bending Radius No load (mm)	Min Bending Radius Full load (mm)	Overall Diameter (mm)	Standard Pack Length (m)	Stock/ MTO	Max Drum Length (m)	Max Hauling Tension (N)
40009913	CABLE, SM, DUCT BONDED, 12 FIBRE	12	50	90	200	7.7	5000	STOCK	12000	1200

Note: Overall diameter may vary from the above nominal values between +/- 0.7mm



## 12 FIBRE SINGLES<sup>M@RT</sup>™ - DUCT SINGLE LOOSE-TUBE CABLE

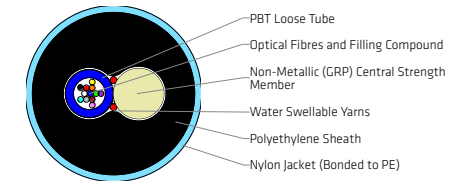
### Cable description:

Cable containing 12 optical fibres in a single water blocked loose tube, laid parallel with a glass reinforced plastic (GRP) strength member, water blocked interstices, overall polyethylene sheathed and integrally bonded nylon jacket.

### Construction details:

- Number of elements: 1
- Tube/fibre identification: Colour coded
- Strength member: Glass reinforced plastic (GRP)
- Fibre protection: Polybutylene terephthalate (PBT)
- Water blocking: Thixotropic gel (tube)
- Water swellable yarns (interstices)
- Sheath: Polyethylene (UV stabilised)
- Jacket: Nylon (UV stabilised) - Blue

### Cross sectional drawing:



Drawing not to scale

Dimensions and mass:	
Overall cable diameter (nominal):	7.7mm
Mass (nominal):	50kg/km

Fibre characteristics:
Single-mode 1310nm optimised: In compliance with ITU-T recommendation G.652.D and IEC 60793 Part 2 - 50 Type B1.3

Note: Other fibres are available upon request

Mechanical and environmental performance:	
Minimum bending radius - No load	90mm
Minimum bending radius - Full load	200mm
Maximum tensile strength - Short term	1200 N
Maximum crush resistance - Short term	2000 N/10cm
Maximum crush resistance - Long term	1000 N/10cm
Operating temperature range: From -10°C to + 70°C	

Optical fibre and tube colours:											
Fibre 1 Tube 1	Fibre 2	Fibre 3	Fibre 4	Fibre 5	Fibre 6	Fibre 7	Fibre 8	Fibre 9	Fibre 10	Fibre 11	Fibre 12
Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua

Specifications: Telstra Optical Fibre Cable; AS/CA 5008 and IEC 60794 series Serial / Item number: 40009913
The information contained in this data sheet is subject to normal manufacturing tolerances. Specifications are subject to change within the terms and conditions of the relevant Contract/Agreement.



# Sm@rtLink™ Duct Multi Loose-Tube Cable



Multi Loose-Tube optical fibre cables designed for installation in ducts. Cable is fully dielectric thus immune to electric shocks or magnetic interferences. Loose tubes, each containing 12 single mode fibres, are stranded with reversing helix around a composite glass fibre reinforced plastic (GRP) central strength member that provides longitudinal strength (tensile and compressive). The tubes are filled with a low viscosity, non-melting gel that prevent the longitudinal passage of moisture along the tube. The cable core is protected from moisture permeation and water penetration by means of a dry water blocking system. Fibre counts in the range of 36 to 144 are catered for with this construction. Each individual fibre is coloured within each tube for unambiguous identification. The cable is completed by the application of a co-extruded dual layer of polyethylene sheath with an integrally bonded nylon jacket for protection against termite attack with improved cable bending and durability.



# Cable Information

Telstra Material Number	Material Description	Number of Fibres	Nominal Weight (kg/km)	Min. Bending Radius No load (mm)	Min Bending Radius Full load (mm)	Overall Diameter (mm)	Standard Pack Length (m)	Stock/ MTO	Max Drum Length (m)	Max Hauling Tension (N)
40010738	CABLE, SM, DUCT BONDED, 36 FIBRE	36	60	91	182	9.1	-	MTO	12000	1500
40010739	CABLE, SM, DUCT BONDED, 72 FIBRE	72	60	91	182	9.1	5000	Stock	12000	1500
40010740	CABLE, SM, DUCT BONDED, 144 FIBRE	144	126	124	248	12.4	-	MTO	12000	3000

Note: Overall diameter may vary from the above nominal values between +/- 0.7mm



## 36 to 72 FIBRE SM@RTLINK™ - DUCT MULTI LOOSE-TUBE CABLE

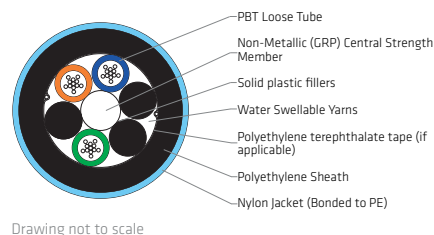
### Cable description:

Cable containing up to 72 optical fibres in water blocked loose tubes (12 fibres per tube) and solid plastic fillers, laid-up around a glass reinforced plastic (GRP) central strength member, water blocked interstices, taped (where required), polyethylene overall sheathed and integrally bonded nylon jacketed.

### Construction details:

Number of elements:	6
Tube/fibre identification:	Colour coded
Central Strength member:	Glass reinforced plastic (GRP)
Fibre protection:	Polybutylene terephthalate (PBT)
Fillers:	As required
Water blocking:	Thixotropic gel (tube) Water swellable yarns (interstices)
Core wrapping:	Polyethylene terephthalate tape (except 72 fibre cable)
Sheath:	Polyethylene (UV stabilised)
Jacket:	Nylon (UV stabilised) – Blue

### Cross sectional drawing:



Dimensions and mass:	
Overall cable diameter (nominal):	9.1mm
Mass (nominal):	60kg/km

Fibre characteristics:
Single-mode 1310nm optimised: In compliance with ITU-T recommendation G.652.D and IEC 60793 Part 2 – 50 Type B1.3

Note: Other fibres are available upon request

Mechanical and environmental performance:	
Minimum bending radius – No load	91mm
Minimum bending radius – Full load	182mm
Maximum tensile strength – Short term	1500 N
Maximum crush resistance – Short term	2000 N/10cm
Maximum crush resistance – Long term	1000 N/10cm
Operating temperature range: From -10°C to + 70°C	

Optical fibre and tube colours:											
Fibre 1 Tube 1	Fibre 2 Tube 2	Fibre 3 Tube 3	Fibre 4 Tube 4	Fibre 5 Tube 5	Fibre 6 Tube 6	Fibre 7	Fibre 8	Fibre 9	Fibre 10	Fibre 11	Fibre 12
Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua

Specifications: Telstra Optical Fibre Cable; AS/CA 5008 and IEC 60794 series Telstra Material numbers: 40010738 and 40010739
The information contained in this data sheet is subject to normal manufacturing tolerances. Specifications are subject to change within the terms and conditions of the relevant Contract/Agreement.



## 144 FIBRE SM@RTLINK™ - DUCT MULTI LOOSE-TUBE CABLE

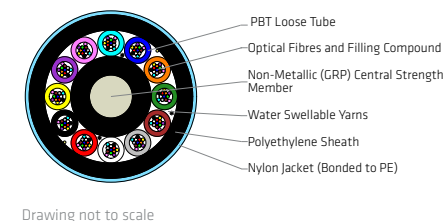
### Cable description:

Cable containing 144 optical fibres in water blocked loose tubes (12 fibres per tube), laid-up around a polyethylene covered glass reinforced plastic (GRP) central strength member, water blocked interstices, polyethylene overall sheathed and integrally bonded nylon jacketed.

### Construction details:

Number of elements:	12
Tube/fibre identification:	Colour coded
Central Strength member:	Glass reinforced plastic (GRP)
Fibre protection:	Polybutylene terephthalate (PBT)
Water blocking:	Thixotropic gel (tube) Water swellable yarns (interstices)
Sheath:	Polyethylene (UV stabilised)
Jacket:	Nylon (UV stabilised) – Blue

### Cross sectional drawing:



Dimensions and mass:	
Overall cable diameter (nominal):	12.4mm
Mass (nominal):	126kg/km

Fibre characteristics:
Single-mode 1310nm optimised: In compliance with ITU-T recommendation G.652.D and IEC 60793 Part 2 – 50 Type B1.3

Note: Other fibres are available upon request

Mechanical and environmental performance:	
Minimum bending radius – No load	124mm
Minimum bending radius – Full load	248mm
Maximum tensile strength – Short term	3000 N
Maximum crush resistance – Short term	2000 N/10cm
Maximum crush resistance – Long term	1000 N/10cm
Operating temperature range: From -10°C to + 70°C	

Optical fibre and tube colours:											
Fibre 1 Tube 1	Fibre 2 Tube 2	Fibre 3 Tube 3	Fibre 4 Tube 4	Fibre 5 Tube 5	Fibre 6 Tube 6	Fibre 7 Tube 7	Fibre 8 Tube 8	Fibre 9 Tube 9	Fibre 10 Tube 10	Fibre 11 Tube 11	Fibre 12 Tube 12
Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua

Specifications: Telstra Optical Fibre Cable; AS/CA 5008 and IEC 60794 series Telstra Material numbers: 40010740
The information contained in this data sheet is subject to normal manufacturing tolerances. Specifications are subject to change within the terms and conditions of the relevant Contract/Agreement.



# Flextube® Duct Flexible Module Cable



Flexible Module optical fibre cables designed for installation in ducts. Cable is fully dielectric thus immune to electric shocks or magnetic interferences. Flexible modules each contain 12 single mode fibres. The modules are filled with a low viscosity, non-melting gel that prevents the longitudinal passage of moisture. The cable core is protected from moisture permeation and water penetration by means of a dry water blocking system. A layer of polymer yarns are helically applied over the cable bundle. Composite glass fibre reinforced plastic (GRP) strength members that provide longitudinal strength (tensile and compressive) are embedded in the sheath during the extrusion process. The application of a co-extruded dual layer of polyethylene sheath with an integrally bonded nylon jacket forms protection against termite attack with improved cable bending and durability.

Fibre counts of 360F and 720F are catered for with this construction. Each individual fibre is coloured within each tube for unambiguous identification. 720F has a pink nylon sheath to highlight that it comprises BBXS 200µm G657. A2 fibre.



# Cable Information

Telstra Material Number	Material Description	Number of Fibres	Nominal Weight (kg/km)	Min. Bending Radius No load (mm)	Min Bending Radius Full load (mm)	Overall Diameter (mm)	Standard Pack Length (m)	Stock/ MTO	Max Drum Length (m)	Max Hauling Tension (N)
40010869	CABLE, SM DUCT BONDED, 360 FIBRE	360	150	148	296	14.8	-	MTO	7000	2500
40007900	CABLE, SM DUCT BONDED, 720 FIBRE	720	200	165	330	16.5	-	MTO	7000	4000

Note: 720F comprises BBXS 200µm G657.A2 fibre and a pink outer nylon sheath  
 Note: Overall diameter may vary from the above nominal values between +/- 0.7mm



## 360 FIBRE FLEXTUBE® - DUCT FLEXIBLE MODULE CABLE

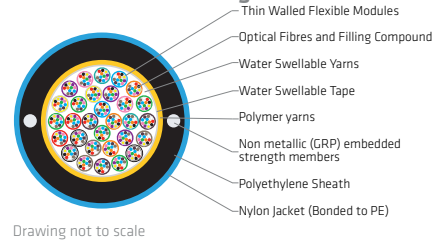
### Cable description:

Cable containing 360 optical fibres in water blocked flexible modules (12 fibres per module), water blocked interstices, polymer yarn, taped, 2 glass reinforced plastic (GRP) strength members embedded, polyethylene overall sheathed and integrally bonded nylon jacketed.

### Construction details:

Number of elements: 30  
 Module/fibre identification: Colour coded  
 Fibre protection: Thin walled thermoplastic  
 Water blocking: Thixotropic gel (modules)  
 Water blocking: Water swellable yarns (interstices)  
 Peripheral Yarns: Polymer yarns  
 Embedded strength member: Diametrically opposed glass reinforced plastic (GRP)  
 Sheath: Polyethylene (UV stabilised)  
 Jacket: Nylon (UV stabilised) - Blue

### Cross sectional drawing:



Dimensions and mass:	
Overall cable diameter (nominal):	14.8mm
Mass (nominal):	150kg/km

Fibre characteristics:
Single-mode 1310nm optimised: In compliance with ITU-T recommendation G.652.D and IEC 60793 Part 2 - 50 Type B1.3

Mechanical and environmental performance:	
Minimum bending radius - No load	148mm
Minimum bending radius - Full load	296mm
Maximum tensile strength - Short term	2500 N
Maximum crush resistance - Short term	2000 N/10cm
Maximum crush resistance - Long term	1000 N/10cm

Operating temperature range: From -10°C to +70°C

Optical fibre colours:											
Fibre 1	Fibre 2	Fibre 3	Fibre 4	Fibre 5	Fibre 6	Fibre 7	Fibre 8	Fibre 9	Fibre 10	Fibre 11	Fibre 12
Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua

Module colours:												
No.	1	2	3	4	5	6	7	8	9	10	11	12
Colour	Blue	Orange	Green	Brown	Grey	White	Red	Light green	Yellow	Violet	Pink	Aqua
No.	13	14	15	16	17	18	19	20	21	22	23	24
Colour	Blue	Orange	Green	Brown	Grey	White	Red	Light green	Yellow	Violet	Pink	Aqua
No.	25	26	27	28	29	30	31	32	33	34	35	36
Colour	Blue	Orange	Green	Brown	Grey	White	Red	Light green	Yellow	Violet	Pink	Aqua
No.	37	38	39	40	41	42	43	44	45	46	47	48
Colour	Blue	Orange	Green	Brown	Grey	White	Red	Light green	Yellow	Violet	Pink	Aqua
No.	49	50	51	52	53	54	55	56	57	58	59	60
Colour	Blue	Orange	Green	Brown	Grey	White	Red	Light green	Yellow	Violet	Pink	Aqua

Specifications: Telstra Optical Fibre Cable; AS/CA 5008 and IEC 60794 series  
 Telstra Material number: 40010869

The information contained in this data sheet is subject to normal manufacturing tolerances. Specifications are subject to change within the terms and conditions of the relevant Contract/Agreement.



## 720 FIBRE FLEXTUBE® - DUCT FLEXIBLE MODULE CABLE

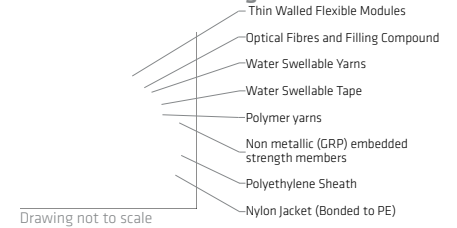
### Cable description:

Cable containing 720 optical fibres in water blocked flexible modules (12 fibres per module), water blocked interstices, polymer yarns, taped, 2 glass reinforced plastic (GRP) strength members embedded, polyethylene overall sheathed and integrally bonded nylon jacketed.

### Construction details:

Number of elements: 60  
 Module/fibre identification: Colour coded  
 Fibre protection: Thin walled thermoplastic  
 Water blocking: Thixotropic gel (modules)  
 Water blocking: Water swellable yarns (interstices)  
 Peripheral Yarns: Polymer yarns  
 Embedded strength member: Diametrically opposed glass reinforced plastic (GRP)  
 Sheath: Polyethylene (UV stabilised)  
 Jacket: Nylon (UV stabilised) - Pink

### Cross sectional drawing:



Dimensions and mass:	
Overall cable diameter (nominal):	16.5mm
Mass (nominal):	200kg/km

Fibre characteristics:
Single-mode 1310nm optimised. 200µm bend-insensitive: In compliance with ITU-T recommendation G.657.A2 and IEC 60793-2-50 Type B6_a2

Mechanical and environmental performance:	
Minimum bending radius - No load	165mm
Minimum bending radius - Full load	330mm
Maximum tensile strength - Short term	4000 N
Maximum crush resistance - Short term	2000 N/10cm
Maximum crush resistance - Long term	1000 N/10cm

Operating temperature range: From -10°C to +70°C

Optical fibre colours:											
Fibre 1	Fibre 2	Fibre 3	Fibre 4	Fibre 5	Fibre 6	Fibre 7	Fibre 8	Fibre 9	Fibre 10	Fibre 11	Fibre 12
Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua

Module colours:												
No.	1	2	3	4	5	6	7	8	9	10	11	12
Colour	Blue	Orange	Green	Brown	Grey	White	Red	Light green	Yellow	Violet	Pink	Aqua
No.	13	14	15	16	17	18	19	20	21	22	23	24
Colour	Blue	Orange	Green	Brown	Grey	White	Red	Light green	Yellow	Violet	Pink	Aqua
No.	25	26	27	28	29	30	31	32	33	34	35	36
Colour	Blue	Orange	Green	Brown	Grey	White	Red	Light green	Yellow	Violet	Pink	Aqua
No.	37	38	39	40	41	42	43	44	45	46	47	48
Colour	Blue	Orange	Green	Brown	Grey	White	Red	Light green	Yellow	Violet	Pink	Aqua
No.	49	50	51	52	53	54	55	56	57	58	59	60
Colour	Blue	Orange	Green	Brown	Grey	White	Red	Light green	Yellow	Violet	Pink	Aqua

Specifications: Telstra Optical Fibre Cable; AS/CA 5008 and IEC 60794 series  
 Telstra Material number: 40007900

The information contained in this data sheet is subject to normal manufacturing tolerances. Specifications are subject to change within the terms and conditions of the relevant Contract/Agreement.





# HSe - eXTR@CORE® Direct Buried High Strength Cable



Multi Loose-Tube optical fibre cables designed for installation by direct burial. Cable fully dielectric thus immune to electric shocks or magnetic interferences. Loose tubes of increased hoop strength, each containing up to 12 single mode fibres, are stranded with reversing helix around a composite glass fibre reinforced plastic (GRP) central strength member. The dimension of the strength member has been increased to afford high longitudinal strength, particularly in compression to resist the massive forces typically experienced in areas of reactive/ black soils commonly found in rural Australia. The tubes are filled with a low viscosity, non-melting gel that prevents the longitudinal passage of moisture along the tube. The cable core is protected from moisture permeation and water penetration by means of a dry water blocking system. Fibre counts in the range of 36 to 144 are catered for with this construction. Each individual fibre and tube is coloured for unambiguous identification. The cable is completed by the application of a co-extruded dual layer of polyethylene sheath with an integrally bonded nylon jacket for protection against termite attack with improved cable bending and durability. The thickness of the combined polyethylene/nylon is considerably thicker than that of Duct cables.



## Cable Information

Telstra Material Number	Material Description	Number of Fibres	Nominal Weight (kg/km)	Min. Bending Radius No load (mm)	Min Bending Radius Full load (mm)	Overall Diameter (mm)	Standard Pack Length (m)	Stock/ MTO	Max Drum Length (m)	Max Hauling Tension (N)
48436136	CABLE, SM, HIGH STRENGTH, 36 FIBRE	36	170	225	450	14.8	-	MTO	10500	4000
48436172	CABLE, SM, HIGH STRENGTH, 72 FIBRE	72	176	225	450	14.8	-	MTO	10500	4000
48436544	CABLE, SM, HIGH STRENGTH, 144 FIBRE	144	394	345	690	23.0	-	MTO	5000	4000

Note: Overall diameter may vary from the above nominal values between +/- 0.7mm



## 36 to 72 FIBRE HSe eXTR@CORE® - DIRECT BURIED HIGH STRENGTH

(For Underground Direct Buried Applications)

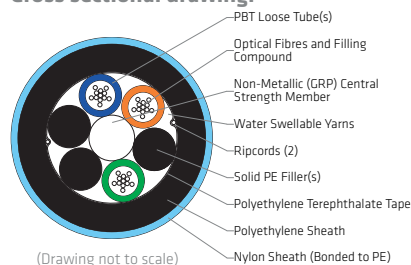
### Cable description:

Cable containing up to 72 optical fibres in water blocked loose tubes (12 fibres/ tube) laid-up with fillers around a non-metallic glass reinforced plastic (GRP) central strength member, water blocked interstices, taped, polyethylene overall sheath and integrally bonded, nylon jacket.

### Construction details:

- Number of elements: 6
- Tube/Fibre identification: Colour coded
- Central strength member: Glass reinforced plastic (GRP)
- Fibre protection (tubes): Polybutylene terephthalate (PBT)
- Fillers: As required
- Water blocking: Thixotropic gel (tubes)
- Water swellable: Water swellable yarns (interstices)
- Core wrapping: Polyethylene terephthalate tape (except 72F)
- Sheath: Polyethylene (UV Stabilised)
- Jacket: Nylon (UV Stabilised) - Blue

### Cross sectional drawing:



#### Dimensions and mass:

Overall cable diameter (nominal):	14.8 mm
Mass (nominal):	170 - 176 kg/km

#### Fibre characteristics:

Single-mode 1310nm optimised: In compliance with ITU-T recommendation G.652.D and IEC 60793 Part 2 - 50 Type B1.3

Note: Other fibres are available upon request

#### Mechanical and environmental performance:

Minimum bending radius - No load	225 mm
Minimum bending radius - Full load	450 mm
Maximum tensile strength - Short term	4000 N
Maximum crush resistance - Short term	6000 N/10cm
Axial Compression (At 4kN load with <0.03 x cable OD lateral movement)	≥1%
Operating temperature range: From - 10°C to + 70°C	

#### Optical fibre and tube colours:

Fibre 1 Tube 1	Fibre 2 Tube 2	Fibre 3 Tube 3	Fibre 4 Tube 4	Fibre 5 Tube 5	Fibre 6 Tube 6	Fibre 7	Fibre 8	Fibre 9	Fibre 10	Fibre 11	Fibre 12
Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua

Specifications: Telstra Optical Fibre Cable; AS/CA 5008 and IEC 60794 series  
Telstra Material numbers: 48436136; and 48436172

The information contained in this data sheet is subject to normal manufacturing tolerances. Specifications are subject to change within the terms and conditions of relevant agreement and/or contract



## 144 FIBRE HSe eXTR@CORE® - DIRECT BURIED HIGH STRENGTH

(For Underground Direct Buried Applications)

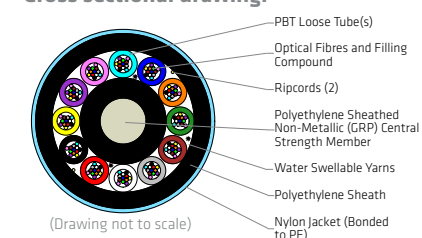
### Cable description:

Cable containing 144 optical fibres in water blocked loose tubes (12 fibres per tube) laid-up around a polyethylene covered glass reinforced plastic (GRP) central strength member, water blocked interstices, polyethylene overall sheath and integrally bonded nylon jacket.

### Construction details:

- Number of elements: 12
- Tube/Fibre identification: Colour coded
- Central strength member: Glass reinforced plastic (GRP)
- Fibre protection (tubes): Polybutylene terephthalate (PBT)
- Water blocking: Thixotropic gel (tubes)
- Water swellable: Water swellable yarns (interstices)
- Sheath: Polyethylene (UV Stabilised)
- Jacket: Nylon (UV Stabilised) - Blue

### Cross sectional drawing:



#### Dimensions and mass:

Overall cable diameter (nominal):	23.0mm
Mass (nominal):	394 kg/km

#### Fibre characteristics:

Single-mode 1310nm optimised: In compliance with ITU-T recommendation G.652 and IEC 60793 Part 2 - 50 Type B1.3

Note: Other fibres are available upon request

#### Mechanical and environmental performance:

Minimum bending radius - No load	345mm
Minimum bending radius - Full load	690mm
Maximum tensile strength - Short term	4000 N
Maximum crush resistance - Short term	6000 N/10cm
Axial Compression (At 4kN load with <0.03 x cable OD lateral movement)	≥1%
Operating temperature range: From - 10°C to + 70°C	

#### Optical fibre and tube colours:

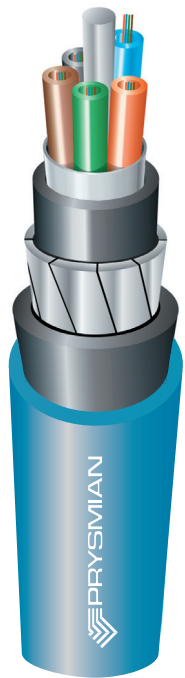
Fibre 1 Tube 1	Fibre 2 Tube 2	Fibre 3 Tube 3	Fibre 4 Tube 4	Fibre 5 Tube 5	Fibre 6 Tube 6	Fibre 7 Tube 7	Fibre 8 Tube 8	Fibre 9 Tube 9	Fibre 10 Tube 10	Fibre 11 Tube 11	Fibre 12 Tube 12
Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua

Specifications: Telstra Optical Fibre Cable; AS/CA 5008 and IEC 60794 series  
Telstra Material number: 48436544

The information contained in this data sheet is subject to normal manufacturing tolerances. Specifications are subject to change within the terms and conditions of relevant agreement and/or contract.



# ARM@CORE® Rodent Proof All Dielectric Cable



Multi Loose-Tube optical fibre cables designed for installation by direct burial in locations subject to rodent attack. Cable is fully dielectric thus immune to electric shocks or magnetic interferences. Loose tubes each containing up to 12 single mode fibres are stranded with reversing helix around a composite glass fibre reinforced plastic (GRP) central strength member and complemented with composite GRP armouring to resist rodent attack. Fibre counts in the range of 36 to 144 are catered for with this construction.

360 fibre count is constructed in a Flextube® design, for installation in ducts. A black polyethylene inner sheath, with diametrically opposed GRP's, is provided to act as bedding for a layer of flat Glass Reinforced Plastic straps that are applied helically to provide an extremely effective barrier to all types and sizes of rodents. The cable is then completed by the application of a co-extruded dual layer of polyethylene sheath with an integrally bonded Nylon jacket for protection against termites.

This cable has been tested extensively for resistance to rodent attack by the Department of Natural resources and Mines and the University of Queensland to demonstrate that even after severe exposure, cable integrity is maintained.



# Cable Information

Telstra Material Number	Material Description	Number of Fibres	Nominal Weight (kg/km)	Min. Bending Radius No load (mm)	Min Bending Radius Full load (mm)	Overall Diameter (mm)	Standard Pack Length (m)	Stock/ MTO	Max Drum Length (m)	Max Hauling Tension (N)
48453136	CABLE, SM RODENT PROOF, 36 FIBRE	36	180	220	440	14.6	-	MTO	12000	4000
48453172	CABLE, SM RODENT PROOF, 72 FIBRE	72	185	225	450	14.7	-	MTO	12000	4000
48453544	CABLE, SM RODENT PROOF, 144 FIBRE	144	317	295	590	19.5	-	MTO	7000	5000
40010128	CABLE, SM RODENT PROOF, 360 FIBRE*	360	230	249	498	16.6	-	MTO	5000	5000

\*Note: Overall diameter may vary from the above nominal values between +/- 1.5mm  
 \*Note: Rodent proof 360F cable is constructed in a Flextube design (i.e. not multi loose-tube).



## 36 FIBRE ARM@CORE® - RODENT PROOF ALL DIELECTRIC CABLE

(For Underground Duct or Direct Buried Applications)

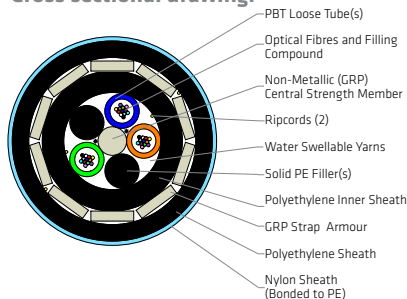
### Cable description:

Cable containing up to 36 optical fibres in water blocked loose tubes (12 fibres per tube) and round plastic fillers laid-up around a glass reinforced plastic (GRP) central strength member, water blocked interstices, taped, polyethylene inner sheath, glass reinforced plastic strap armoured, polyethylene overall sheath and integrally bonded nylon jacket.

### Construction details:

Number of elements:	5
Tube/Fibre identification:	Colour coded
Central strength member:	Glass reinforced plastic (GRP)
Fibre protection (tubes):	Polybutylene terephthalate (PBT)
Water blocking:	Thixotropic gel (tubes) Water swellable yarns (interstices)
Inner sheath:	Polyethylene
Armouring:	Glass reinforced plastic straps
Water blocking:	Water swellable tape (over armour)
Sheath:	Polyethylene
Jacket:	Nylon (UV Stabilised)

### Cross sectional drawing:



36 Fibre Rodent Proof (Drawing not to scale)

#### Dimensions and mass:

Overall cable diameter (nominal):	14.6 mm
Mass (nominal):	180 kg/km

#### Fibre characteristics:

Single-mode 1310nm optimised: In compliance with ITU-T recommendation G.652.D and IEC 60793 Part 2 - 50 Type B1.3

Note: Other fibres are available upon request

#### Mechanical and environmental performance:

Minimum bending radius - No load	220 mm
Minimum bending radius - Full load	440 mm
Maximum tensile strength - Short term	4000 N
Maximum crush resistance - Short term	6000 N/10cm
Operating temperature range: From -10°C to + 70°C	

#### Optical fibre and tube colours:

Fibre 1 Tube 1	Fibre 2 Tube 2	Fibre 3 Tube 3	Fibre 4 Tube 4	Fibre 5 Tube 5	Fibre 6	Fibre 7	Fibre 8	Fibre 9	Fibre 10	Fibre 11	Fibre 12
Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua

Specifications: Telstra Optical Fibre Cable; AS/CA 5008 and IEC 60794 series  
Telstra Material number: 48453136

The information contained in this data sheet is subject to normal manufacturing tolerances. Specifications are subject to change within the terms and conditions of relevant agreement and/or contract.



## 72 FIBRE ARM@CORE® - RODENT PROOF ALL DIELECTRIC CABLE

(For Underground Duct or Direct Buried Applications)

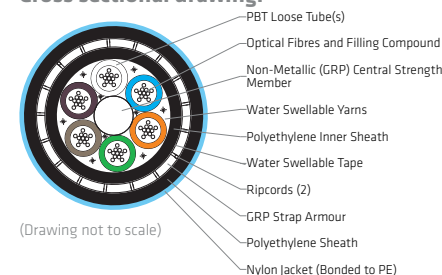
### Cable description:

Cable containing 72 optical fibres in water blocked loose tubes (12 fibres per tube) laid-up around a composite glass reinforced plastic (GRP) central strength member, water blocked interstices, polyethylene inner sheath, GRP strap armour, overall polyethylene sheath and integrally bonded nylon jacket.

### Construction details:

Number of elements:	6
Tube/Fibre identification:	Colour coded
Central strength member:	Glass reinforced plastic (GRP)
Fibre protection (tubes):	Polybutylene terephthalate (PBT)
Water blocking:	Thixotropic gel (tubes) Water swellable yarns (interstices)
Inner sheath:	Polyethylene
Armouring:	Glass reinforced plastic straps
Water blocking:	Water swellable tape (over armour)
Sheath:	Polyethylene (UV Stabilised)
Jacket:	Nylon (UV Stabilised) - Blue

### Cross sectional drawing:



(Drawing not to scale)

#### Dimensions and mass:

Overall cable diameter (nominal):	14.7 mm
Mass (nominal):	185 kg/km

#### Fibre characteristics:

Single-mode 1310nm optimised: In compliance with ITU-T recommendation G.652.D and IEC 60793 Part 2 - 50 Type B1.3

Note: Other fibres are available upon request

#### Mechanical and environmental performance:

Minimum bending radius - No load	225 mm
Minimum bending radius - Full load	450 mm
Maximum tensile strength - Short term	5000 N
Maximum crush resistance - Short term	6000 N/10cm
Operating temperature range: From -10°C to + 70°C	

#### Optical fibre and tube colours:

Fibre 1 Tube 1	Fibre 2 Tube 2	Fibre 3 Tube 3	Fibre 4 Tube 4	Fibre 5 Tube 5	Fibre 6 Tube 6	Fibre 7	Fibre 8	Fibre 9	Fibre 10	Fibre 11	Fibre 12
Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua

Specifications: Telstra Optical Fibre Cable; AS/CA 5008 and IEC 60794 series  
Telstra Material number: 48453172

The information contained in this data sheet is subject to normal manufacturing tolerances. Specifications are subject to change within the terms and conditions of relevant agreement and/or contract.



## 144 FIBRE ARM@CORE® - RODENT PROOF ALL DIELECTRIC CABLE

(For Underground Duct or Direct Buried Applications)

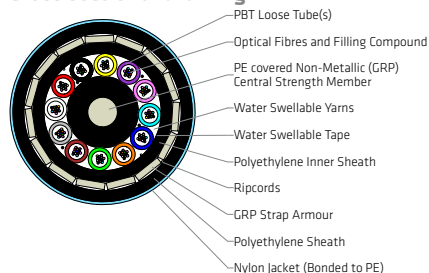
### Cable description:

Cable containing 144 optical fibres in water blocked loose tubes (12 fibres per tube) laid-up around a polyethylene covered glass reinforced plastic (GRP) central strength member, water blocked interstices, polyethylene inner sheath, GRP strap armour, overall polyethylene sheath and integrally bonded nylon jacket.

### Construction details:

Number of elements:	12
Tube/Fibre identification:	Colour coded
Central strength member:	Glass reinforced plastic (GRP)
Fibre protection (tubes):	Polybutylene terephthalate (PBT)
Water blocking:	Thixotropic gel (tubes) Water swellable yarns (interstices)
Inner sheath:	Polyethylene
Armouring:	Glass reinforced plastic straps
Water blocking:	Water swellable tape (over armour)
Sheath:	Polyethylene (UV Stabilised)
Jacket:	Nylon (UV Stabilised) - Blue

### Cross sectional drawing:



(Drawing not to scale)

#### Dimensions and mass:

Overall cable diameter (nominal):	19.5 mm
Mass (nominal):	317 kg/km

#### Fibre characteristics:

Single-mode 1310nm optimised: In compliance with ITU-T recommendation G.652.D and IEC 60793 Part 2 - 50 Type B1.3

Note: Other fibres are available upon request

#### Mechanical and environmental performance:

Minimum bending radius - No load	295 mm
Minimum bending radius - Full load	590 mm
Maximum tensile strength - Short term	5000 N
Maximum crush resistance - Short term	6000 N/10cm

Operating temperature range: From -10°C to + 70°C

#### Optical fibre and tube colours:

Fibre 1 Tube 1	Fibre 2 Tube 2	Fibre 3 Tube 3	Fibre 4 Tube 4	Fibre 5 Tube 5	Fibre 6 Tube 6	Fibre 7 Tube 7	Fibre 8 Tube 8	Fibre 9 Tube 9	Fibre 10 Tube 10	Fibre 11 Tube 11	Fibre 12 Tube 12
Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua

Specifications: Telstra Optical Fibre Cable; AS/CA 5008 and IEC 60794 series  
Telstra Material number: 48453544

The information contained in this data sheet is subject to normal manufacturing tolerances. Specifications are subject to change within the terms and conditions of relevant agreement and/or contract.



## 360 FIBRE ARM@CORE® - RODENT PROOF ALL DIELECTRIC CABLE

(For Underground Duct Applications)

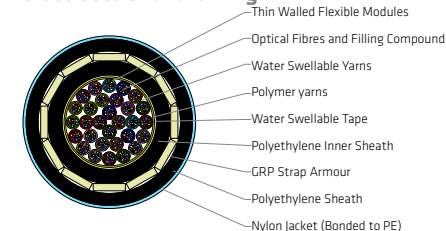
### Cable description:

Cable containing 360 optical fibres in water blocked flexible modules (12 fibres per module), water blocked interstices, polymer yarns, taped, polyethylene inner sheath, GRP strap armour, overall polyethylene overall sheath and integrally bonded nylon jacket.

### Construction details:

Number of elements:	30
Tube/fibre identification:	Colour coded
Fibre protection:	Thin walled thermoplastic
Water blocking:	Thixotropic gel (modules) Water swellable yarns (interstices) Polymer yarns
Peripheral Yarns:	Polyethylene
Inner sheath:	Polyethylene
Armouring:	Glass reinforced plastic straps
Water blocking:	Water swellable tape (over armour)
Sheath:	Polyethylene (UV stabilised)
Jacket:	Nylon (UV stabilised) - Blue

### Cross sectional drawing:



(Drawing not to scale)

#### Dimensions and mass:

Overall cable diameter (nominal):	16.6mm
Mass (nominal):	230kg/km

#### Fibre characteristics:

Single-mode 1310nm optimised: In compliance with ITU-T recommendation G.652.D and IEC 60793 Part 2 - 50 Type B1.3

#### Mechanical and environmental performance:

Minimum bending radius - No load	249mm
Minimum bending radius - Full load	498mm
Maximum tensile strength - Short term	5000 N
Maximum crush resistance - Short term	4000 N/10cm

Operating temperature range: From -10°C to + 70°C

#### Optical fibre colours:

Fibre 1	Fibre 2	Fibre 3	Fibre 4	Fibre 5	Fibre 6	Fibre 7	Fibre 8	Fibre 9	Fibre 10	Fibre 11	Fibre 12
Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua

#### Module colours:

No.	1	2	3	4	5	6	7	8	9	10	11	12
Colour	Blue	Orange	Green	Brown	Grey	White	Red	Light green	Yellow	Violet	Pink	Aqua
No.	13	14	15	16	17	18	19	20	21	22	23	24
Colour	Blue	Orange	Green	Brown	Grey	White	Red	Light green	Yellow	Violet	Pink	Aqua
No.	25	26	27	28	29	30						
Colour	Blue	Orange	Green	Brown	Grey	White						

Specifications: Telstra Optical Fibre Cable; AS/CA 5008 and IEC 60794 series  
Telstra Material number: 40010128

The information contained in this data sheet is subject to normal manufacturing tolerances. Specifications are subject to change within the terms and conditions of the relevant Contract/Agreement.

# SM@RTSPAN®

## Aerial All Dielectric Self Supporting (ADSS)



Aerial cables are of All Dielectric Self Supported (ADSS) design. Multi Loose-Tube optical fibre cables designed for installation between poles up to 150m apart. Loose tubes each containing up to 12 single mode fibres are stranded around a composite glass fibre reinforced plastic (GRP) central strength member. The cable core is protected from moisture permeation and water penetration by means of a dry water blocking system. A black polyethylene inner sheath is then applied as a bedding for a layer of high modulus aramid yarns that form the principal strength member of the cable. The cable is completed by the application of a snug fitting polyethylene sheath that has strong congruence with the aramid yarns and enables external grips to be fitted for stringing. The cable is designed for 150m span at a minimum of 2% sag under everyday conditions (no wind or ice and ambient temperature). The cable, installed as such, will withstand simultaneous wind and ice loads of 100km/h and 5 mm radial respectively. This cable withstands shot-gun blast as defined in Telstra specification. Longer span lengths up to 500 metres are available upon request.



## Cable Information

Telstra Material Number	Material Description	Number of Fibres	Nominal Weight (kg/km)	Min. Bending Radius No load (mm)	Min Bending Radius Full load (mm)	Overall Diameter (mm)	Standard Pack Length (m)	Stock/ MTO	Max Drum Length (m)	Max Hauling Tension (N)
48431112	CABLE, SM AERIAL SHORT SPAN, 12 FIBRE	12	132	203	270	13.5	1000	MTO	6000	2700
48431172	ABLE, SM AERIAL SHORT SPAN, 72 FIBRE	72	159	218	290	14.5	1000	MTO	6000	3000

Note: Overall diameter tolerance is aligned with standard clamp sizes.  
 Note: Overall diameter may vary from the above nominal values between +/- 0.3mm



## 12 FIBRE SM@RTSPAN® - AERIAL ADSS

(Short Span Self – Supported Cable)

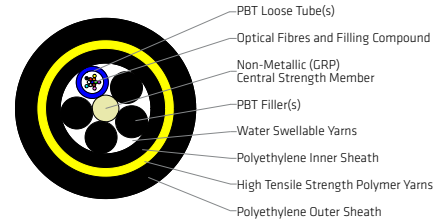
### Cable description:

Cable containing 12 optical fibres in water blocked loose tubes (12 fibres per tube) and round plastic fillers, laid-up around a glass reinforced plastic (GRP) central strength member, water blocked interstices, polyethylene inner sheath, high tensile strength polymer yarns reinforced and polyethylene overall sheath.

### Construction details:

Number of elements:	5
Tube/Fibre identification:	Colour coded
Central strength member:	Glass reinforced plastic (GRP)
Fibre protection (tubes):	Polybutylene terephthalate (PBT)
Fillers:	As required
Water blocking:	Thixotropic gel (tubes) Water swellable yarns (interstices)
Sheath:	Polyethylene
Reinforcing:	High Tensile Strength Polymer Yarns
Outer sheath:	Polyethylene (UV Stabilised)

### Cross sectional drawing:



(Drawing not to scale)

#### Dimensions and mass:

Overall cable diameter (nominal):	13.5 mm
Mass (nominal):	132 kg/km

#### Fibre characteristics:

Single-mode 1310nm optimised: In compliance with ITU-T recommendation G.652.D and IEC 60793 Part 2 – 50 Type B1.3
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Note: Other fibres are available upon request

#### Mechanical and environmental performance:

Minimum bending radius – No load	203 mm
Minimum bending radius – Full load (Inc. coils in poles)	270 mm
Maximum everyday tension	1.3 kN
Maximum working tension*	5.4kN
Maximum crush resistance – Short term	2kN/10cm
Maximum span*	150m
Minimum sag (Installation)	2%

Operating temperature range: From -30°C to +70°C

(\*) = Under maximum conditions of 100 km/hr wind velocity and 5mm radial ice loading

#### Optical fibre and tube colours:

Fibre 1 Tube 1	Fibre 2	Fibre 3	Fibre 4	Fibre 5	Fibre 6	Fibre 7	Fibre 8	Fibre 9	Fibre 10	Fibre 11	Fibre 12
Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua

Specifications: Telstra Optical Fibre Cable; AS/CA 5008 and IEC 60794 series  
Telstra Material numbers: 48431112

The information contained in this data sheet is subject to normal manufacturing tolerances. Specifications are subject to change within the terms and conditions of relevant agreement and/or contract.



## 72 FIBRES SM@RTSPAN® - AERIAL ADSS

(Short Span Self – Supported Cable)

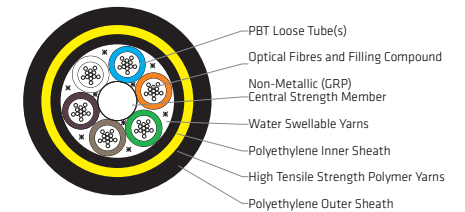
### Cable description:

Cable containing 72 optical fibres in water blocked loose tubes (12 fibres per tube) laid-up around a glass reinforced plastic (GRP) central strength member, water blocked interstices, polyethylene inner sheath, high tensile strength polymer yarns reinforced and polyethylene overall sheath.

### Construction details:

Number of elements:	6
Tube/Fibre identification:	Colour coded
Central strength member:	Glass reinforced plastic (GRP)
Fibre protection (tubes):	Polybutylene terephthalate (PBT)
Water blocking:	Thixotropic gel (tubes) Water swellable yarns (interstices)
Sheath:	Polyethylene
Reinforcing:	High Tensile Strength Polymer Yarns
Outer sheath:	Polyethylene (UV Stabilised)

### Cross sectional drawing:



(Drawing not to scale)

#### Dimensions and mass:

Overall cable diameter (nominal):	14.5 mm
Mass (nominal):	159 kg/km

#### Fibre characteristics:

Single-mode 1310nm optimised: In compliance with ITU-T recommendation G.652.D and IEC 60793 Part 2 – 50 Type B1.3
---

Note: Other fibres are available upon request

#### Mechanical and environmental performance:

Minimum bending radius – No load	218 mm
Minimum bending radius – Full load (Inc. coils in poles)	290 mm
Maximum everyday tension	1.5 kN
Maximum working tension*	5.8 kN
Maximum crush resistance – Short term	2 kN/10cm
Maximum span*	150m
Minimum sag (Installation)	2%

Operating temperature range: From -30°C to +70°C

(\*) = Under maximum conditions of 100 km/hr wind velocity and 5mm radial ice loading

#### Optical fibre and tube colours:

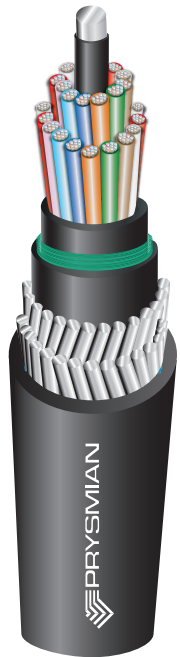
Fibre 1 Tube 1	Fibre 2 Tube 2	Fibre 3 Tube 3	Fibre 4 Tube 4	Fibre 5 Tube 5	Fibre 6 Tube 6	Fibre 7	Fibre 8	Fibre 9	Fibre 10	Fibre 11	Fibre 12
Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua

Specifications: Telstra Optical Fibre Cable; AS/CA 5008 and IEC 60794 series  
Telstra Material number: 48431172

The information contained in this data sheet is subject to normal manufacturing tolerances. Specifications are subject to change within the terms and conditions of relevant agreement and/or contract.



# UNDERWATER SM@RTCORE®



Multi Loose-Tube optical fibre cables designed for installation in shallow water to a depth of 30m. Cable has a fully dielectric core that is protected by the application of three layers of metallic armouring. Fibre counts in the range of 72 to 312 are catered for with this construction. The cable core is fully water blocked by means of a dry water blocking system. A bedding layer of polyethylene is applied over the cable core to support a composite sheath featuring a corrugated steel tape armour/hermetic seal that is bonded to a polyethylene sheath. The space between the inner sheath and the steel tape is protected with a swellable tape to prevent moisture permeation in case of external damage to the cable. Two contra-rotating helical layers of steel armour wires are applied flooded with a special mixture of water swelling jelly and hydrogen absorbing (Hydroget®) compound to provide long-term water blocking protection to the cable. The cable is then completed by the application of a high density polyethylene sheath. Cable of this type is suitable for shallow water crossings in areas that are exposed to boating and fishing traffic such as may be experienced in a harbour or river crossing. The cable is available in long lengths of more than 4 km.



# Cable Information

Telstra Material Number	Material Description	Number of Fibres	Nominal Weight (kg/ km)	Min. Bending Radius No load (mm)	Min Bending Radius Full load (mm)	Overall Diameter (mm)	Standard Pack Length (m)	Stock/ MTO	Max Drum Length (m)	Max Hauling Tension (N)
48450172	CABLE, SM UNDERWATER, 72 FIBRE	72	3100	660	990	32.9	-	MTO	Contact Prysmian	30000
48450544	CABLE, SM UNDERWATER, 144 FIBRE	144	4395	820	1230	41.0	-	MTO	Contact Prysmian	30000
48450712	CABLE, SM UNDERWATER, 312 FIBRE	312	4400	820	1230	41.0	-	MTO	Contact Prysmian	30000

Note: Overall diameter may vary from the above nominal values between +/- 3mm





## 72 FIBRE UNDERWATER - SM@RTCORE®

(For Harbour, Lake and River Crossing Applications)

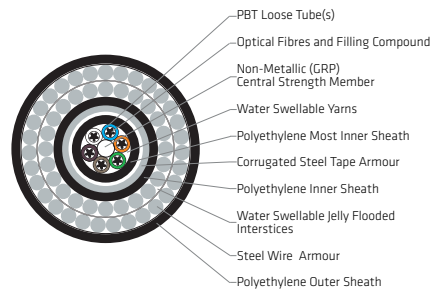
### Cable description:

Cable containing up to 72 optical fibres in water blocked loose tubes (12 fibres per tube) laid-up around a glass reinforced plastic (GRP) central strength member, water blocked interstices, polyethylene most inner sheath, corrugated steel tape armoured, polyethylene inner sheath, two layers, steel wire armoured, water swellable jelly interstices and polyethylene overall sheath.

### Construction details:

- Number of elements: 6
- Tube/Fibre identification: Colour coded
- Central strength member: Glass reinforced plastic (GRP)
- Fibre protection (tubes): Polybutylene terephthalate (PBT)
- Water blocking: Thixotropic gel (tubes)  
Water swellable yarns (cable core)  
Water swellable tape (under CST)  
Water swellable jelly (armour interstices)
- Inner sheath: Polyethylene
- Armour (longitudinal): Copolymer laminated steel tape
- Sheath: Polyethylene
- Armour: Double layer steel wires
- Outer sheath: High density polyethylene

### Cross sectional drawing:



(Drawing not to scale)

#### Dimensions and mass:

Overall cable diameter (nominal):	32.9 mm
Mass (nominal):	3100 kg/km

#### Fibre characteristics:

Single-mode 1310nm optimised. In compliance with ITU-T recommendation G.652.D and IEC 60793 Part 2 - 50 Type B1.3

Note: Other fibres are available upon request

#### Mechanical and environmental performance:

Minimum bending radius - No load	660 mm
Minimum bending radius - Full load	990 mm
Maximum tensile strength - Short term	30 kN
Maximum crush resistance - Short term	5 kN/10 cm
Maximum crush resistance - Long term	2kN/10cm

Operating temperature range: From -10°C to +70°C

#### Optical fibre and tube colours:

Fibre 1 Tube 1	Fibre 2 Tube 2	Fibre 3 Tube 3	Fibre 4 Tube 4	Fibre 5 Tube 5	Fibre 6 Tube 6	Fibre 7	Fibre 8	Fibre 9	Fibre 10	Fibre 11	Fibre 12
Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua

Specifications: Telstra Optical fibre cable; AS/CA 5008 and IEC 60794 series  
Telstra Material number: 48450172

The information contained in this data sheet is subject to normal manufacturing tolerances. Specifications are subject to change within the terms and conditions of the relevant Contract/Agreement.



## 144 FIBRES UNDERWATER - SM@RTCORE®

(For Harbour, Lake and River Crossing Applications)

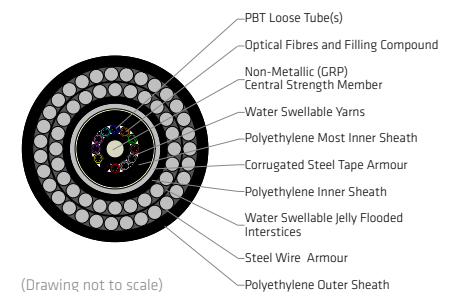
### Cable description:

Cable containing 144 optical fibres in water blocked loose tubes (12 fibres per tube) laid-up around a polyethylene covered glass reinforced plastic (GRP) central strength member, water blocked interstices, polyethylene most inner sheath, corrugated steel tape armoured, polyethylene inner sheath, two layers steel wire armoured, water swellable jelly interstices and polyethylene overall sheath.

### Construction details:

- Number of elements: 12
- Tube/Fibre identification: Colour coded
- Central strength member: Glass reinforced plastic (GRP)
- Fibre protection (tubes): Polybutylene terephthalate (PBT)
- Water blocking: Thixotropic gel (tubes)  
Petroleum jelly (cable core)  
Water swellable tape (under CST)  
Water swellable jelly (armour interstices)  
Water swellable jelly (armour interstices)
- Inner sheath: Polyethylene
- Armour (longitudinal): Copolymer laminated steel tape
- Sheath: Polyethylene
- Armour: Double layer steel wires
- Outer sheath: High density polyethylene (UV Stabilised)

### Cross sectional drawing:



(Drawing not to scale)

#### Dimensions and mass:

Overall cable diameter (nominal):	41.0 mm
Mass (nominal):	4395 kg/km

#### Fibre characteristics:

Single-mode 1310nm optimised. In compliance with ITU-T recommendation G.652.D and IEC 60793 Part 2 - 50 Type B1.3

Note: Other fibres are available upon request

#### Mechanical and environmental performance:

Minimum bending radius - No load	820 mm
Minimum bending radius - Full load	1230 mm
Maximum tensile strength - Short term	30 kN
Maximum crush resistance - Short term	5000 N/10 cm
Maximum crush resistance - Long term	2000 N/10 cm

Operating temperature range: From -10°C to +70°C

#### Optical fibre and tube colours:

Fibre 1 Tube 1	Fibre 2 Tube 2	Fibre 3 Tube 3	Fibre 4 Tube 4	Fibre 5 Tube 5	Fibre 6 Tube 6	Fibre 7 Tube 7	Fibre 8 Tube 8	Fibre 9 Tube 9	Fibre 10 Tube 10	Fibre 11 Tube 11	Fibre 12 Tube 12
Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua

Specifications: Telstra Optical fibre cable; AS/CA 5008 and IEC 60794 series  
Telstra Material number: 48450544

The information contained in this data sheet is subject to normal manufacturing tolerances. Specifications are subject to change within the terms and conditions of the relevant Contract/Agreement.



## 312 FIBRES UNDERWATER - SM@RTCORE®

(For Harbour, Lake and River Crossing Applications)

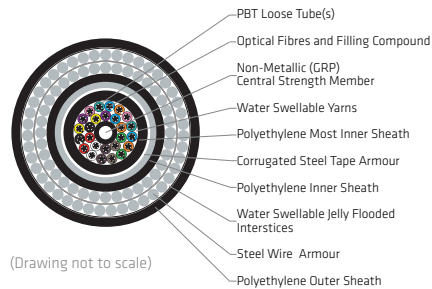
### Cable description:

Cable containing 312 optical fibres in water blocked loose tubes (12 fibres per tube) laid-up in two layers around a polyethylene covered glass reinforced plastic (GRP) central strength member, water blocked interstices, polyethylene most inner sheath, corrugated steel tape armoured, polyethylene inner sheath, two layers steel wire armoured, water swellable jelly interstices and polyethylene overall sheath.

### Construction details:

- Number of elements: 26
- Tube/Fibre identification: Colour coded
- Central strength member: Glass reinforced plastic (GRP)
- Fibre protection (tubes): Polybutylene terephthalate (PBT)
- Water blocking: Thixotropic gel (tubes)  
Water swellable yarns (cable core)  
Water swellable tape (under CST)  
Water swellable jelly (armour interstices)
- Inner sheath: Polyethylene
- Armour (longitudinal): Copolymer laminated steel tape
- Sheath: Polyethylene
- Armour: Double layer steel wires
- Outer sheath: High Density Polyethylene (UV Stabilised)

### Cross sectional drawing:



#### Dimensions and mass:

Overall cable diameter (nominal):	41.0 mm
Mass (nominal):	4400 kg/km

#### Fibre characteristics:

Single-mode 1310nm optimised: In compliance with ITU-T recommendation G.652.D and IEC 60793 Part 2 - 50 Type B1.3

Note: Other fibres are available upon request

#### Mechanical and environmental performance:

Minimum bending radius - No load	820 mm
Minimum bending radius - Full load	1230 mm
Maximum tensile strength - Short term	30 kN
Maximum crush resistance - Short term	5000 N/10 cm
Maximum crush resistance - Long term	2000 N/10 cm

Operating temperature range: From 10°C to +70°C

#### Optical fibre and tube colours:

Fibre 1	Fibre 2	Fibre 3	Fibre 4	Fibre 5	Fibre 6	Fibre 7	Fibre 8	Fibre 9	Fibre 10	Fibre 11	Fibre 12
Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua

#### Tube Colours: (1st layer from tube 1 to 10 and 2nd layer from tube 11 to 26)

Tube 1	Tube 2	Tube 3	Tube 4	Tube 5	Tube 6	Tube 7	Tube 8	Tube 9	Tube 10	Tube 11	Tube 12
Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua
Tube 13	Tube 14	Tube 15	Tube 16	Tube 17	Tube 18	Tube 19	Tube 20	Tube 21	Tube 22	Tube 23	Tube 24
Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua
Tube 25	Tube 26	Blue	Orange								

Specifications: Telstra Optical fibre cable; AS/CA 5008 and IEC 60794 series  
Telstra Material number: 484 50712

The information contained in this data sheet is subject to normal manufacturing tolerances. Specifications are subject to change within the terms and conditions of the relevant Contract/Agreement.

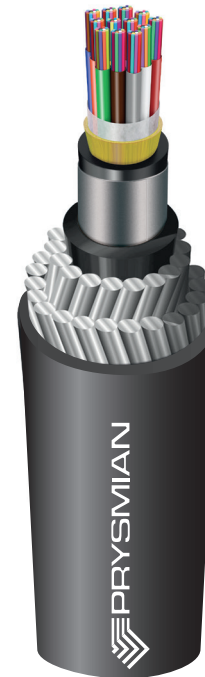


## UNDERWATER Flextube®

Multi Flexible Module optical fibre cables designed for installation in shallow water up to 30m.

Cable has a fully dielectric core that is protected by the application of three layers of metallic armouring. Underwater Flextube is available in a fibre count of 720 fibres. The cable core is fully water blocked by means of a dry water blocking system. A bedding layer of polyethylene is applied over the cable core to support a composite sheath featuring a corrugated steel tape armour/hermetic seal that is bonded to a polyethylene sheath. The space between the inner sheath and the steel tape is protected with a swellable tape to prevent moisture permeation in case of external damage to the cable. Two contra-rotating helical layers of steel armour wires are applied flooded with a special mixture of water swelling jelly and hydrogen absorbing (Hydroget®) compound to provide long-term water blocking protection to the cable. The cable is then completed by the application of a high density polyethylene sheath.

Each individual fibre is coloured within each tube for unambiguous identification. Underwater Flextube cables comprise BBXS 200µm G657.A2 fibre.





# Cable Information

Telstra Material Number	Material Description	Number of Fibres	Nominal Weight (kg/ km)	Min. Bending Radius No load (mm)	Min Bending Radius Full load (mm)	Overall Diameter (mm)	Standard Pack Length (m)	Stock/ MTO	Max Drum Length (m)	Max Hauling Tension (N)
40007901	CABLE, G657.A2 UNDERWATER, 720 FIBRE	720	4400	820	1230	41.0	-	MTO	Contact Prysmian	30000

Note: Overall diameter may vary from the above nominal values between +/- 3mm



## 720 FIBRE UNDERWATER - FLEXTUBE®

(For Harbour, Lake, and River Crossing Applications)

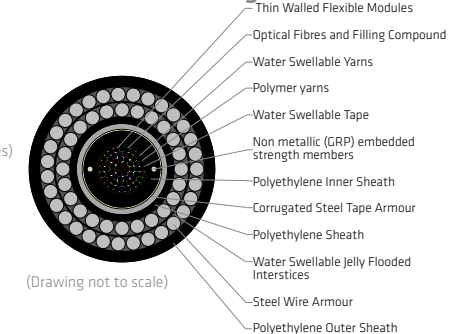
### Cable description:

Cable containing 720 optical fibres in multiple water blocked flexible modules (12 fibres per module), stranded with the interstices water blocked, polymer yarns helically laid over cable bundle, non-metallic glass reinforced plastic (GRP) strength members embedded in inner most polyethylene sheath. Corrugated steel tape armour, polyethylene inner sheath, two layers, steel wire armour, water swellable jelly interstices and polyethylene overall sheath.

### Construction details:

- Number of elements: 60
- Tube/Fibre identification: Colour coded
- Fibre protection: Thin walled thermoplastic
- Water blocking: Thixotropic gel (modules)  
Water swellable yarns (interstices)  
Water swellable tape (under CST)  
Water swellable jelly (armour interstices)
- Peripheral strength member: Polymer yarns
- Embedded strength member: Diametrically opposed glass reinforced plastic
- Inner sheath: Polyethylene (UV stabilised)
- Armour (longitudinal): Copolymer laminated steel tape
- Sheath: Polyethylene
- Armour: Double layer steel wires
- Outer sheath: High density polyethylene

### Cross sectional drawing:



Dimensions and mass:												
Overall cable diameter (nominal):	41.0mm											
Mass (nominal):	4400kg/km											
Fibre characteristics:												
Single-mode 1310nm optimised, 200µm bend-insensitive: In compliance with ITU-T recommendation G.657.A2 and IEC 60793-2-50 Type B6_a2												
Mechanical and environmental performance:												
Minimum bending radius - No load	820mm											
Minimum bending radius - Full load	1230mm											
Maximum tensile strength - Short term	30000 N											
Maximum crush resistance - Short term	5000 N/10cm											
Maximum crush resistance - Long term	2000 N/10 cm											
Operating temperature range: From -10°C to + 70°C												
Optical fibre colours:												
Fibre 1	Fibre 2	Fibre 3	Fibre 4	Fibre 5	Fibre 6	Fibre 7	Fibre 8	Fibre 9	Fibre 10	Fibre 11	Fibre 12	
Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua	
Module colours:												
No.	1	2	3	4	5	6	7	8	9	10	11	12
Colour	Blue	Orange	Green	Brown	Grey	White	Red	Light green	Yellow	Violet	Pink	Aqua
No.	13	14	15	16	17	18	19	20	21	22	23	24
Colour	Blue	Orange	Green	Brown	Grey	White	Red	Light green	Yellow	Violet	Pink	Aqua
No.	25	26	27	28	29	30	31	32	33	34	35	36
Colour	Blue	Orange	Green	Brown	Grey	White	Red	Light green	Yellow	Violet	Pink	Aqua
No.	37	38	39	40	41	42	43	44	45	46	47	48
Colour	Blue	Orange	Green	Brown	Grey	White	Red	Light green	Yellow	Violet	Pink	Aqua
No.	49	50	51	52	53	54	55	56	57	58	59	60
Colour	Blue	Orange	Green	Brown	Grey	White	Red	Light green	Yellow	Violet	Pink	Aqua
Specifications: Telstra Optical Fibre Cable; AS/CA 5008 and IEC 60794 series												
Telstra Material number: 40007901												
The information contained in this data sheet is subject to normal manufacturing tolerances. Specifications are subject to change within the terms and conditions of the relevant Contract/Agreement.												



# Internal Tie SM@RTCORE® (LSOH)



Multi Loose-Tube optical fibre cables designed for intra-building cabling applications. Used within buildings and can be located in vertical riser shafts from the cable well to the main optical distribution frame (ODF) or from the main ODF to an intermediate optical distribution frame. Each loose tube containing up to 12 single mode fibres is filled with a low viscosity, non-melting gel to protect the fibres from external stresses. Fibre counts in the range of 12 to 312 are catered for with this construction. Each individual fibre is coloured within each tube for unambiguous identification. For the 312 fibre cable tubes are arranged in two layers identified by means of a combination of colours and co-extruded longitudinal stripes on the surface. The cable is completed with the application of a zero halogen flame retardant low smoke and fume (LSOH) thermoplastic sheath that is suitable for installation within buildings due to its flame propagation limiting characteristics.



# Cable Information

Telstra Material Number	Material Description	Number of Fibres	Nominal Weight (kg/km)	Min. Bending Radius No load (mm)	Min Bending Radius Full load (mm)	Overall Diameter (mm)	Standard Pack Length (m)	Stock/ MTO	Max Drum Length (m)	Max Hauling Tension (N)
48462112	CABLE, SM INTERNAL, TIE 12 FIBRE	12	74	90	200	9.0	-	MTO	12000	2000
48462172	CABLE, SM INTERNAL, TIE 72 FIBRE	72	77	90	200	8.7	1000	Stock	12000	2000
48462544	CABLE, SM INTERNAL, TIE 144 FIBRE	144	167	135	270	13.1	1000	Stock	12000	2500
48462712	CABLE, SM INTERNAL, TIE 312 FIBRE	312	235	160	300	15.9	-	MTO	12000	3000

Note: Overall diameter may vary from the above nominal values between +/- 0.7mm



## 12 to 72 FIBRES INTERNAL TIE - SM@RTCORE®

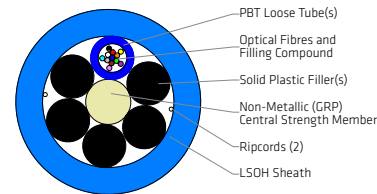
### Cable description:

Cable containing up to 72 optical fibres in water blocked loose tubes (12 fibres per tube) and solid plastic fillers laid-up around a glass reinforced plastic (GRP) central strength member, dry core and LSOH (flame retardant, low smoke generation, low toxic gas emission and zero halogen) thermoplastic overall sheath.

### Construction details:

Number of elements: 6  
 Tube/Fibre identification: Colour coded  
 Central strength member: Glass reinforced plastic (GRP)  
 Fibre protection (tubes): Polybutylene terephthalate (PBT)  
 Fillers: As required  
 Water blocking: Thixotropic gel (tubes)  
 Sheath: LSOH - Blue

### Cross sectional drawing:



(Drawing not to scale)

#### Dimensions and mass:

Overall cable diameter (nominal):	8.7 - 9.0 mm
Mass (nominal):	74 - 77 kg/km

#### Fibre characteristics:

Single-mode 1310nm optimised: In compliance with ITU-T recommendation G.652.D and IEC 60793 Part 2 - 50 Type B1.3

Note: Other fibres are available upon request

#### Mechanical and environmental performance:

Minimum bending radius - No load	90 mm
Minimum bending radius - Full load	200 mm
Maximum tensile strength - Short term	2000 N
Maximum crush resistance - Short term	1000 N/10cm
Maximum crush resistance - Long term	500 N/10cm
Operating temperature range: From 0°C to + 60°C	

#### Optical fibre and tube colours:

Fibre 1 Tube 1	Fibre 2 Tube 2	Fibre 3 Tube 3	Fibre 4 Tube 4	Fibre 5 Tube 5	Fibre 6 Tube 6	Fibre 7	Fibre 8	Fibre 9	Fibre 10	Fibre 11	Fibre 12
Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua

Specifications: Telstra Optical Fibre Cable; AS/CA 5008 and IEC 60794 series  
 Telstra Material numbers: 48462112 and 48462172

The information contained in this data sheet is subject to normal manufacturing tolerances. Specifications are subject to change within the terms and conditions of relevant agreement and/or contract.



## 144 FIBRES INTERNAL TIE - SM@RTCORE®

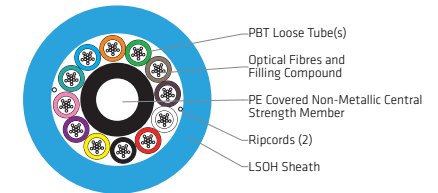
### Cable description:

Cable containing 144 optical fibres in water blocked loose tubes (12 fibres per tube) laid-up around a polyethylene covered glass reinforced plastic (GRP) central strength member, dry core and LSOH (flame retardant, low smoke generation, low toxic gas emission and zero halogen) thermoplastic overall sheath.

### Construction details:

Number of elements: 12  
 Tube/Fibre identification: Colour coded  
 Central strength member: Glass reinforced plastic (GRP)  
 Fibre protection (tubes): Polybutylene terephthalate (PBT)  
 Water blocking: Thixotropic gel (tubes)  
 Sheath: LSOH - Blue

### Cross sectional drawing:



(Drawing not to scale)

#### Dimensions and mass:

Overall cable diameter (nominal):	13.1 mm
Mass (nominal):	167 kg/km

#### Fibre characteristics:

Single-mode 1310nm optimised: In compliance with ITU-T recommendation G.652.D and IEC 60793 Part 2 - 50 Type B1.3

Note: Other fibres are available upon request

#### Mechanical and environmental performance:

Minimum bending radius - No load	135 mm
Minimum bending radius - Full load	270 mm
Maximum tensile strength - Short term	2500 N
Maximum crush resistance - Short term	1000 N/10cm
Maximum crush resistance - Long term	500 N/10cm
Operating temperature range: From 0°C to + 60°C	

#### Optical fibre and tube colours:

Fibre 1 Tube 1	Fibre 2 Tube 2	Fibre 3 Tube 3	Fibre 4 Tube 4	Fibre 5 Tube 5	Fibre 6 Tube 6	Fibre 7 Tube 7	Fibre 8 Tube 8	Fibre 9 Tube 9	Fibre 10 Tube 10	Fibre 11 Tube 11	Fibre 12 Tube 12
Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua

Specifications: Telstra Optical Fibre Cable; AS/CA 5008 and IEC 60794 series  
 Telstra Material number: 48462544

The information contained in this data sheet is subject to normal manufacturing tolerances. Specifications are subject to change within the terms and conditions of relevant agreement and/or contract.



## 312 FIBRES INTERNAL TIE - SM@RTCORE®

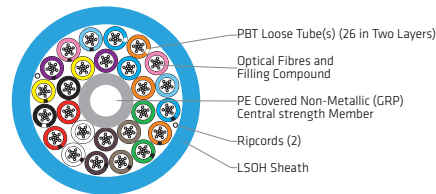
### Cable description:

Cable containing 312 optical fibres in water blocked loose tubes (12 fibres per tube) laid-up in two layers around a polyethylene covered glass reinforced plastic (GRP) central strength member, dry core and LSOH (flame retardant, low smoke generation, low toxic gas emission and zero halogen) thermoplastic overall sheath.

### Construction details:

Number of elements:	26 (Two layers)
Tube/Fibre identification:	Colour coded
Central strength member:	Glass reinforced plastic (GRP)
Fibre protection (tubes):	Polybutylene terephthalate (PBT)
Water blocking:	Thixotropic gel (tubes)
Sheath:	LSOH - Blue

### Cross sectional drawing:



(Drawing not to scale)

Dimensions and mass:	
Overall cable diameter (nominal):	15.9 mm
Mass (nominal):	235 kg/km
Fibre characteristics:	
Single-mode 1310nm optimised: In compliance with ITU-T recommendation G.652.D and IEC 60793 Part 2 - 50 Type B1.3	

Mechanical and environmental performance:	
Minimum bending radius - No load	160 mm
Minimum bending radius - Full load	300 mm
Maximum tensile strength - Short term	3000 N
Maximum crush resistance - Short term	1000 N/10cm
Maximum crush resistance - Long term	500 N/10cm
Operating temperature range: From 0°C to + 60°C	

Note: Other fibres are available upon request

Optical fibre colours:											
Fibre 1	Fibre 2	Fibre 3	Fibre 4	Fibre 5	Fibre 6	Fibre 7	Fibre 8	Fibre 9	Fibre 10	Fibre 11	Fibre 12
Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua
Tube Colours: (1st layer from tube 1 to 10 and 2nd layer from tube 11 to 26)											
Tube 1	Tube 2	Tube 3	Tube 4	Tube 5	Tube 6	Tube 7	Tube 8	Tube 9	Tube 10	Tube 11	Tube 12
Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua
Tube 13	Tube 14	Tube 15	Tube 16	Tube 17	Tube 18	Tube 19	Tube 20	Tube 21	Tube 22	Tube 23	Tube 24
Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua
Tube 25	Tube 26										
Blue	Orange										

Note: Tubes 13 and above have (one) black stripe with the exclusion of tubes 20, 25 & 26 which have (one) white stripe.

<p><b>Specification: Telstra Optical fibre cable; AS/CA S008 and IEC 60794 series</b>  <b>Telstra Material number: 48462712</b></p> <p>The information contained in this data sheet is subject to normal manufacturing tolerances. Specifications are subject to change within the terms and conditions of relevant agreement and/or contract.</p>
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## Internal Riser Customer Premises



Riser cable is designed for installation in riser shafts running between floors of a building or other applications where the cable is to be run vertically. Used in Local Area Networks (LAN) applications including Fibre Distribution Data Interface (FDDI). This type of cable is also suitable for installation in external environments, such as between buildings in a campus network, where the attributes of a small flexible cable with tight buffered fibres, capable of direct connectorisation, are important. Fibre counts in the range of 12 to 24 are available with individual fibre protection provided by means of a tight jacket of 0.9mm diameter, allowing an optical connector to be fitted directly. The individual fibres are then stranded into a compact core along with a combination of standard and water blocking aramid (Kevlar) yarns to provide the core with the required strength, cushioning and water blocking performance. The cable is finished with the application of a zero halogen flame retardant low smoke and fume (LSOH) thermoplastic sheath that is suitable for installation within buildings due to its flame propagation limiting characteristics.



# Cable Information

Telstra Material Number	Material Description	Number of Fibres	Nominal Weight (kg/ km)	Min. Bending Radius No load (mm)	Min Bending Radius Full load (mm)	Overall Diameter (mm)	Standard Pack Length (m)	Stock/ MTO	Max Drum Length (m)	Max Hauling Tension (N)
48492112	12F SM IND/ OUTDOOR RISER BLUE	12	33	62	124	6.2	-	MTO	2000	600
48492124	24F SM IND/ OUTDOOR RISER BLUE	24	61	88	176	8.8	-	MTO	2000	1100
48392312*	12F M50E OM4-PLUS/ OUTDOOR RISER AQUA	12	53	62	124	6.2	-	MTO	2000	600
48392324*	24F M50E OM4-PLUS/ OUTDOOR RISER AQUA	24	61	88	176	8.8	-	MTO	2000	1100

Note: Overall diameter may vary from the above nominal values between +/- 0.5mm

\*Note: These cables contain Maxcap-BB-OM4-PLUS optical fibres. MaxCap-BB-OM4-PLUS is an enhanced OM4 fibre that compensates for chromatic dispersion and as a result is fully optimised for 850nm laser applications. By optimising both modal and chromatic dispersion our OM4-PLUS fibre offers increased run lengths when compared to standard OM4 fibre. For example a 10GbE link distance can be extended from a maximum of 400m to up to 600m. The fibre also exhibits very low bending sensitivity which offers the ability to increase fibre density when space is limited as well as improving overall system network reliability.



## 12 to 24 FIBRE INDOOR / OUTDOOR LIGHT DUTY RISER OPTICAL CABLE

### Cable description:

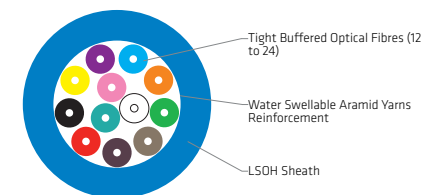
The cable consists of 12 to 24 fibres of 900µm tight buffered optical fibres reinforced with water swellable aramid yarns and sheathed with LSOH (flame retardant, low smoke generation, low toxic gas emission and zero halogen) compound. For Local Area Networks (LAN) applications including Fibre Distribution Data Interface (FDDI). Cable is suitable for wideband applications in customer premises in indoor and outdoor installations.

Note: Cable meets the water penetration test as per IEC 60794-1-2-F 5C as specified in AS/CA S008

### Construction details:

Number of elements:	12 or 24
Fibre identification:	Colour coded
Fibre Insulation:	Tight Buffered Polymer
Reinforcing:	Water Swellable Aramid Yarns
Sheath:	LSOH - UV resistant (Blue)

### Cross sectional drawing:



(Drawing not to scale)

Dimensions and mass:		
Fibre count	12	24
Overall cable diameter (nominal):	6.2mm	8.8 mm
Mass (nominal):	33 kg/km	61 kg/km

Fibre characteristics:		
Single-mode 1310nm optimised: In compliance with ITU-T recommendation G.652.D and IEC 60793 Part 2 - 50 Type B1.3.		
Multi-mode 50 enhanced (OM4-PLUS): In compliance with ITU-T recommendation G651 and IEC 60793 Part 2 - 10 Type A1a.3		

Mechanical and environmental performance:		
Fibre Count	12	24
Minimum bending radius- No load [mm]	62	88
Minimum bending radius- Full load [mm]	124	176
Maximum tensile strength - Short term [N]	600	1100
Crush resistance - Short term [N/100mm]	1000	
Crush resistance - Long term [N/100mm]	500	
Operating temperature range [°C]	-10 to + 70	
Serial / Item numbers	48492112 and 48392312	48492124 and 48392324

Optical fibre and tube colours:											
Fibre 1	Fibre 2	Fibre 3	Fibre 4	Fibre 5	Fibre 6	Fibre 7	Fibre 8	Fibre 9	Fibre 10	Fibre 11	Fibre 12
Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua

**Specifications: Telstra Optical Fibre Cable; ISO/IEC 11801; AS/CA S008 and IEC 60794 series**  
**Telstra Material Number: 48492112; 48492124; 48392312; and 48392324**

The information contained in this data sheet is subject to normal manufacturing tolerances. Specifications are subject to change within the terms and conditions of relevant agreement and/or contract.



## Internal / External Breakout



Heavy-duty multi-cord Breakout cable is designed for horizontal and vertical cabling to multi-station outlets with easy, direct termination. Used in Local Area Networks (LAN) including Fibre Distribution Data Interface (FDDI), Ethernet and other high speed protocols. This type of cable is also suitable for hauling into ducts in external environments, such as between buildings in a campus network, where the attributes of a more rugged cable with tight buffered fibres, capable of direct connectorisation, are important. 6 and 12 fibre counts are available with individual fibre protection provided by means of a tight jacket of 0.9mm diameter. Individual fibres are reinforced with water blocking aramid yarns and PVC sheathed into individual highly flexible units/cords of 2.0mm diameter allowing individual breakouts of single fibres. Cords are stranded into a compact core along with water blocking aramid (Kevlar) yarns to provide the core with the required strength, cushioning and water blocking performance. The cable is finished with the application of a UV stabilised, zero halogen flame retardant low smoke and fume (LSOH) thermoplastic sheath that is suitable for installation within buildings due to its flame propagation limiting characteristics.



## Cable Information

Telstra Material Number	Material Description	Number of Fibres	Nominal Weight (kg/ km)	Min. Bending Radius No load (mm)	Min Bending Radius Full load (mm)	Overall Diameter (mm)	Standard Pack Length (m)	Stock/ MTO	Max Drum Length (m)	Max Hauling Tension (N)
48393306*	6F M50E OM4 - PLUS/ OUTDOOR BREAKOUT AQUA	6	72	90	180	8.7	-	MTO	2000	800
48393312*	12F M50E OM4 - PLUS/ OUTDOOR BREAKOUT AQUA	12	151	125	250	12.6	-	MTO	2000	1200

Note: Overall diameter may vary from the above nominal values between +/- 0.7mm

\*Note: These cables contain Maxcap-BB-OM4-PLUS optical fibres. MaxCap-BB-OM4-PLUS is an enhanced OM4 fibre that compensates for chromatic dispersion and as a result is fully optimised for 850nm laser applications. By optimising both modal and chromatic dispersion our OM4-PLUS fibre offers increased run lengths when compared to standard OM4 fibre. For example a 10GbE link distance can be extended from a maximum of 400m to up to 600m. The fibre also exhibits very low bending sensitivity which offers the ability to increase fibre density when space is limited as well as improving overall system network reliability.





# Patchcord and Zipcord



Simplex (Patchcord) and Duplex (Zipcord) cables are designed for equipment interconnections for interfacing to patch panels and fibre management enclosures with easy, direct termination to single and dual connectors. The range is compatible with most optical fibre connectors used within Local Area Network (LAN) applications including Fibre Distribution Data Interface (FDDI), Ethernet, Token Ring and other fibre management enclosures. This cable reduces significantly the cabling density in patch panels. Single-mode fibre used is standard G652D fibre. Fibres are individually protected by means of a tight jacket of 0.9mm diameter. Individual fibres are reinforced with aramid yarns and PVC sheathed into individual (Simplex) or double “figure 8” (Duplex) highly flexible cords of 2.0mm diameter. Zipcords can be breakout into single fibres/cords. Zero halogen flame retardant low smoke and fume (LSOH) sheath.



# Cable Information

Telstra Material Number	Material Description	Number of Fibres	Nominal Weight (kg/ km)	Min. Bending Radius No load (mm)	Min Bending Radius Full load (mm)	Overall Diameter (mm)	Standard Pack Length (m)	Stock/ MTO	Max Drum Length (m)	Max Hauling Tension (N)
48410000	1F SM PATCHCORD YELLOW	1	3.2	30	60	2.0	-	MTO	2000	100
48420000	2F SM ZIPCORD YELLOW (2.0MM)	2	6.6	30	60	2.0X4.2	-	MTO	4000	200
48300001*	1F M50E OM4 - PLUS PATCHCORD AQUA	1	3.2	30	60	2.0	-	MTO	2000	100
48300002*	2F M50E OM4-PLUS ZIPCORD AQUA (2.0MM)	2	6.6	30	60	2.0X4.2	-	MTO	4000	200

\*Note: These cables contain Maxcap-BB-OM4-PLUS optical fibres. MaxCap-BB-OM4-PLUS is an enhanced OM4 fibre that compensates for chromatic dispersion and as a result is fully optimised for 850nm laser applications. By optimising both modal and chromatic dispersion our OM4-PLUS fibre offers increased run lengths when compared to standard OM4 fibre. For example a 10GbE link distance can be extended from a maximum of 400m to up to 600m. The fibre also exhibits very low bending sensitivity which offers the ability to increase fibre density when space is limited as well as improving overall system network reliability.



## OPTICAL FIBRE CHARACTERISTICS

### Single-mode

Single-mode optical fibres supplied in these cables are in accordance with the latest versions of ITU-T Recommendation G.652 and IEC 60793 Part 2 – 50 (Annex C for B1.3 fibre family) specification or ITU-T Recommendation G.657.A2 and IEC 60793 Part 2-50 Type B6\_a2.

### Multi-mode

Multi-mode optical fibres supplied in these cables are in accordance with the latest versions of ITU-T Recommendation G.651.1 and IEC 60793-2-10 A1a.3 specification.

**Table 1.1 - Physical and Geometrical Characteristics for Single-mode Fibre**

ITEM	DESCRIPTION	FIBRE TYPE	
		G.652.D	G.657.A2
Core	Mode Field Diameter at 1310 nm	9.0 ± 0.4 µm	8.8 ± 0.4 µm
	Mode Field Diameter at 1550nm*	10.4 ± 0.5 µm	9.8 ± 0.5 µm
Cladding	Diameter	125 ± 0.7 µm	
Coating/cladding concentricity error		≤ 12 µm	
Core/cladding concentricity error		≤ 0.5 µm	
Cladding surface non-circularity		≤ 0.7%	
Protective coating (primary)	Diameter	245 µm	200 or 245 µm
Protective coating (secondary)**	Diameter	900 ± 50 µm	N/A
Minimum proof stress test level		1 %	

Notes (\*): MFD at 1550 nm is characterised value; (\*\*): For tight jacketed fibre only

**Table 1.2 - Transmission Characteristics for Single-mode G.652.D Fibre**

Attenuation Coefficients		@1310 nm	@1383 nm	@1550 nm	@1625 nm
Max. attenuation of any cabled fibre in any drum length -					
Loose Tube Cables	dB/km	0.35	0.35	0.20	0.23
Flextube Cables	dB/km	0.35	0.35	0.22	0.25
Tight Buffered Fibre Cables	dB/km	0.4	N/A	0.30	N/A
Group Refractive Index		1.467	1.467	1.468	1.468
Point Discontinuities @ 1310 & 1550 nm	dB	≤ 0.10			
Cut-off wavelength of cabled fibre λ <sub>c</sub>	nm	≤1260			
Polarisation Mode Dispersion PMD	ps/√km	≤ 0.1 (Individual Fibre)		≤ 0.06 (Link Value)	
<b>Chromatic Dispersion Coefficients</b>					
Zero Dispersion Wavelength (λ <sub>0</sub> )	nm	1302 to 1322			
Zero Dispersion Slope (S <sub>0</sub> ) at λ <sub>0</sub>	ps/nm <sup>2</sup> .km	≤ 0.092			
Chromatic dispersion coefficient between 1285 and 1330 nm	ps/nm.km	≤ 3.5			
Chromatic dispersion coefficient at 1550 nm	ps/nm.km	≤ 18			
Chromatic dispersion coefficient at 1625 nm	ps/nm.km	≤ 22			
<b>Macro-bending Attenuation</b>					
		@ 1310 nm	@ 1550 nm	@ 1625 nm	
100 turn around 50 mm diam. mandrel	dB	≤ 0.05	≤ 0.05	N/A	
100 turn around 60 mm diam. mandrel	dB	N/A	N/A	≤ 0.05	
1 turn around 32 mm diam. mandrel	dB	N/A	≤ 0.05	N/A	



**Table 1.3 - Transmission Characteristics for Single-mode G.657.A2 Fibre**

Attenuation Coefficients		@1310 nm	@1383 nm	@1550 nm	@1625 nm
Max. attenuation of any cabled fibre in any drum length -					
Flexible Module Cables	dB/km	0.38	0.38	0.23	0.25
Flexible Module Cables (99% fibres*)	dB/km	0.35	0.35	0.22	0.24
Group Refractive Index		1.467	1.467	1.467	1.468
Point Discontinuities @ 1310 & 1550 nm	dB	≤ 0.10			
Cut-off wavelength of cabled fibre λ <sub>c</sub>	nm	≤1260			
Polarisation Mode Dispersion PMD	ps/√km	≤ 0.1 (Individual Fibre)		≤ 0.06 (Link Value)	
<b>Chromatic Dispersion Coefficients</b>					
Zero Dispersion Wavelength (λ <sub>0</sub> )	nm	1300 to 1324			
Zero Dispersion Slope (S <sub>0</sub> ) at λ <sub>0</sub>	ps/nm <sup>2</sup> .km	≤ 0.092			
Chromatic dispersion coefficient between 1285 and 1330 nm	ps/nm.km	≤ 3.7			
Chromatic dispersion coefficient at 1550 nm	ps/nm.km	≤ 18.5			
Chromatic dispersion coefficient at 1625 nm	ps/nm.km	≤ 23.0			
<b>Macro-bending Attenuation</b>					
		@ 1310 nm	@ 1550 nm	@ 1625 nm	
10 turn around 30 mm diam. mandrel	dB	N/A	≤ 0.03	≤ 0.1	
1 turn around 20 mm diam. mandrel	dB	N/A	≤ 0.1	≤ 0.2	
1 turn around 15 mm diam. mandrel	dB	N/A	≤ 0.5	≤ 1.0	

Note (\*): Maximum Attenuation of 99% of fibres within the cable sheath, over the supplied cable length

**Table 2.1 - Physical and Geometrical Characteristics for Laser Optimised Multi-mode Fibre MAXCAP-BB-OM4-PLUS**

ITEM	DESCRIPTION
Core	Diameter 50 ± 2.5 µm
Core non-circularity	≤ 5.0 %
Cladding	Diameter 125 ± 1.0 µm
Cladding non-circularity	≤ 0.7 %
Core/cladding concentricity error	≤ 1 µm
Protective coating (primary)	Diameter 242 ± 5 µm
Coating non-circularity	≤ 5.0 %
Coating/cladding concentricity error	≤ 10 µm
Protective coating (secondary)**	Diameter 900 ± 50 µm
Minimum proof stress test level	1 %

\*\*Note: For tight jacketed fibre only.

**Table 2.2 - Transmission Characteristics for Laser Optimised Multi-mode Fibre**

Attenuation Coefficients	@850 nm	@1300 nm
Maximum attenuation of any fibre in any drum length (dB/km) (cabled fibre)	3.0	1.0
Point discontinuities (dB)	≤ 0.1	≤ 0.1
Numerical aperture	0.200 ± 0.015	
Group refractive index	1.482	1.477
Minimum overfilled modal band width (MHz.km)	3500	500
Minimum effective modal bandwidth (MHz.km)	4700	
Minimum effective laser bandwidth (MHz.km)	5000	
Macro-bending attenuation (bare fibre)	@850 nm	@1300 nm
2 turns around a 15 mm diameter mandrel (dB)	≤ 0.2	≤ 0.5
2 turns around a 30 mm diameter mandrel (dB)	≤ 0.1	≤ 0.3

# Metallic Cables



METALLIC CABLES



## IB Cables



Integral Bearer (IB) cables are used in locations where the Customer Access Network (CAN) is installed aerially rather than underground; typically in metropolitan locations where underground conduits are non-existent and in rural areas. Insulation is by means of solid polyethylene that provides a higher voltage breakdown strength (better lightning resistance) compared with underground distribution cables.

Single wires are twisted into pairs and subsequently 10 pair units in the same way as underground cables. The cable core is un-filled (no grease) since it will never be submerged below the water table and therefore does not require any longitudinal protection against moisture permeation. A black UV resistant polyethylene overall sheath is applied, into which is incorporated a galvanized high tensile steel bearer wire in a "figure of eight" configuration. Special fittings are available in various sizes to clamp the wire at the ends and intermediate points of a run to support the cable on the poles.



## Cable Information

Telstra Material Number	Material Description	Number of Pairs	Nominal weight (kg/km)	Min Bending Diameter (mm)	Overall Diameter (mm)	Standard Pack Length (m)	Stock/ MTO	Nominal Drum Dimensions (mm)	Max Hauling Tension (N)
46505221	CABLE, TEL EXT 10/0.40MM PEIUT IB	10	115	160	7.8 x 13.9	500	Stock	LW1 - 600/250/480	2000
46505224	CABLE, TEL EXT 50/0.40MM PEIUT IB	50	260	280	13.9 x 20.1	500	Stock	LW3 - 1000/350/600	2000
46505226	CABLE, TEL EXT 100/0.40MM PEIUT IB	100	510	400	19.8 x 28.2	500	Stock	LW4 - 1100/400/600	3500
46505241	CABLE, TEL EXT 10/0.64MM PEIUT IB	10	170	210	10.4 x 16.5	500	Stock	LW1 - 600/250/480	2000
46505243	CABLE, TEL EXT 30/0.64MM PEIUT IB	30	390	340	16.7 x 24.8	500	MTO	LW3 - 1000/350/600	3500
46505244	CABLE, TEL EXT 50/0.64MM PEIUT IB	50	570	420	21.0 x 29.4	500	Stock	LW5 - 1250/450/600	3500
46505246	CABLE, TEL EXT 100/0.64MM PEIUT IB	100	1080	590	29.2 x 39.9	500	Stock	OF6 - 1600/800/800	5800



## 10 to 100 PAIR SELF SUPPORTED AERIAL CABLE - INTEGRAL BEARER (FIGURE 8)

(For aerial self-supporting applications)

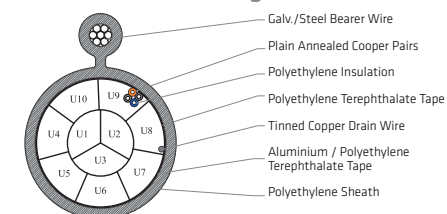
### Cable description:

Cable consists of a number of plain annealed copper conductors (0.40mm or 0.64mm), solid polyethylene insulated, twinned, bunched into 10 pair units, units laid up, taped, aluminium/polyethylene terephthalate screened with a 0.50mm tinned copper drain wire and polyethylene overall sheathed cable incorporating a galvanised steel wire integral bearer in "figure 8" construction.

### Construction details:

Conductor:	Plain annealed copper
Insulation:	Solid polyethylene
Cabling element:	Twisted pair
Wrapping:	Polyethylene terephthalate tape
Drain wire:	Tinned annealed copper 0.5mm nominal diameter
Screen:	Aluminium/polyethylene terephthalate tape
Bearer wire:	Galvanised steel wire
Outer sheath:	Polyethylene (UV stabilised)

### Cross sectional drawing:



100 Pair 0.64mm PEIUT IB (Drawing not to scale)

Electrical characteristics*:	Conductor size	
	0.40 mm	0.64 mm
Maximum conductor resistance [ $\Omega$ /km]	139.3	56.4
Minimum insulation resistance [M $\Omega$ .km]	40000	
Mutual capacitance - maximum average [nF/km]	52	
Max. capacitance unbalance** Pair-Pair (Corrected to 1000m length) [pF]	70	37
Max. capacitance unbalance Pair-Earth (Corrected to 1000m length) [pF]	N/A	600 (30, 50 & 100 Pair) 800 (10 Pair)

\*Note: All electrical characteristics are given at 20°C

\*\*Note: Corresponds to the exponentially smoothed average

Mechanical / physical characteristics:						
Cable size Number of pairs/Diameter	Material Number	GSW (IB) Diameter (mm)	Nominal Diameter (mm)	Nominal Weight (Kg/Km)	Minimum Bend Diameter (mm)	Maximum Tensile Strength over bearer (kN)
10 / 0.40	46505221	1/2.50	7.8 x 13.9	115	160	2.0
50 / 0.40	46505224	1/2.50	13.9 x 20.1	260	280	2.0
100 / 0.40	46505226	7/1.25	19.8 x 28.2	510	400	3.5
10 / 0.64	46505241	1/2.50	10.4 x 16.5	170	210	2.0
30 / 0.64	46505243	7/1.25	16.7 x 24.8	390	340	3.5
50 / 0.64	46505244	7/1.25	21.0 x 29.4	570	420	3.5
100 / 0.64	46505246	7/1.60	29.2 x 39.9	1080	590	5.8
Operating temperature range [°C]: From - 10 to + 70						

### Specifications: Telstra PEIUT IB; AS/CA S008; AS/NZS 1125 and AS 1049

The information contained in this data sheet is subject to normal manufacturing tolerances. Specifications are subject to change within the terms and conditions of relevant agreement and/or contract



## Distribution / Gel Filled

Distribution Cable forms the basis of underground Customer Access Network (CAN) connections from the pillar to the final joint adjacent to the customer's premises. Insulation is foam (cellular) polyethylene to give the appropriate electrical characteristics for long transmission distances and different conductor sizes are available to cover various applications.

Typically 0.40mm conductors are used in metropolitan installations where distances are short and 0.64 and 0.90mm conductors are used in rural situations where longer distances are required. Single wires are twisted into pairs and then bunched together into 10 pair units which form the basic building block for cables up to 800 pairs. Protection against longitudinal moisture permeation is afforded by fully filling the cable interstices with a semi-dry gel. All cables have an overall sheath of black polyethylene with the options on some of incorporating a Nylon jacket for termite resistance and an aluminium MB tape for added moisture and lightning protection in rural applications. All cables up to 100 pair have the nylon jacket intrinsically bonded to the polyethylene sheath.

All types may be installed in underground conduits, ducts or directly buried.



## Cable Information

Telstra Material Number	Material Description	Number of Pairs	Nominal Weight (kg/ km)	Min. Bending Diameter (mm)	Overall Diameter (mm)	Standard Pack Length (m)	Stock/ MTO	Nominal Drum Dimensions (mm)	Max Hauling Tension (N)
46705021	CABLE, TEL EXT 10/0.40 CPFUT PE	10	50	115	7.1	1000	Stock	LW1 - 600/250/480	240
46708121	CABLE, TEL EXT 10/0.40 CPFUT PEHJC	10	55	155	7.6	1000	Stock	LW1 - 600/250/480	240
46705023	CABLE, TEL EXT 30/0.40 CPFUT PE	30	130	180	11.1	1000	Stock	LW2 - 750/250/600	720
46708123	CABLE, TEL EXT 30/0.40 CPFUT PEHJC	30	140	235	11.6	1000	Stock	LW2 750/250/600	720
46705024	CABLE, TEL EXT 50/0.40 CPFUT PE	50	200	215	13.4	1000	Stock	LW3 - 1000/350/600	1200
46708124	CABLE, TEL EXT 50/0.40 CPFUT PEHJC	50	210	280	14.0	1000	Stock	LW3 - 1000/350/600	1200
46705026	CABLE, TEL EXT 100/0.40 CPFUT PE	100	375	290	18.1	1000	Stock	LW4 - 1100/400/600	2400
46708226	CABLE, TEL EXT 100/0.40 CPFUT MBHJC	100	400	370	18.5	1000	Stock	LW4 - 1100/400/600	2400
46709226	CABLE, TEL EXT 100/0.40 CPFUT MBHJ (AIR TUBE)	100	440	420	20.9	1000	MTO	STEEL - 1200/600/1000	2400
46707028	CABLE, TEL EXT 200/0.40 CPFUT MB	200	690	355	22.0	1000	Stock	STEEL - 1200/600/1000	4800
46709228	CABLE, TEL EXT 200/0.40 CPFUT MBHJ (AIR TUBE)	200	755	490	24.6	1000	MTO	STEEL - 1200/600/1000	4800
46707328	CABLE, TEL EXT 200/0.40 CPFUT MBHJS	200	780	490	24.5	500	MTO	STEEL - 1200/600/1000	4800
46707030	CABLE, TEL EXT 400/0.40 CPFUT MB	400	1355	510	31.6	500	MTO	STEEL - 1600/800/900	9600
46709230	CABLE, TEL EXT 400/0.40 CPFUT MBHJ (AIR TUBE)	400	1430	670	33.7	500	MTO	STEEL - 1800/1000/900	9600
46707330	CABLE, TEL EXT 400/0.40 CPFUT MBHJS	400	1480	680	34.2	500	MTO	STEEL - 1800/1000/900	9600
46707032	CABLE, TEL EXT 800/0.40 CPFUT MB	800	2615	700	43.6	100	MTO	STEEL - 2400/1400/1000	19200
46707332	CABLE, TEL EXT 800/0.40 CPFUT MBHJS	800	2790	925	46.2	100	MTO	STEEL - 1800/1000/900	19200
46708241	CABLE, TEL EXT 10/0.64 CPFUT MBHJC	10	125	210	10.5	1000	Stock	LW2 - 750/250/600	600
46708243	CABLE, TEL EXT 30/0.64 CPFUT MBHJC	30	295	320	15.8	1000	Stock	LW3 - 1000/350/600	1800
46708244	CABLE, TEL EXT 50/0.64 CPFUT MBHJC	50	470	400	19.8	1000	Stock	LW5 - 1250/450/600	3000
46708246	CABLE, TEL EXT 100/0.64 CPFUT MBHJC	100	890	540	27.0	1000	Stock	STEEL - 1600/800/900	6100
46709246	CABLE, TEL EXT 100/0.64 CPFUT MBHJ (AIR TUBE)	100	900	540	27.0	1000	MTO	STEEL - 1600/800/900	6100



# Cable Information Continued

Telstra Material Number	Material Description	Number of Pairs	Nominal Weight (kg/km)	Min. Bending Diameter (mm)	Overall Diameter (mm)	Standard Pack Length (m)	Stock/ MTO	Nominal Drum Dimensions (mm)	Max Hauling Tension (N)
46707048	CABLE, TEL EXT 200/0.64 CPFUT MB	200	1580	540	33.5	500	MTO	STEEL - 1800/1000/900	12200
46709248	CABLE, TEL EXT 200/0.64 CPFUT MBHJ (AIR TUBE)	200	1640	690	34.5	1000	MTO	STEEL - 2000/1200/1000	12200
46707348	CABLE, TEL EXT 200/0.64 CPFUT MBHJSJ	200	1715	720	36.0	500	MTO	STEEL - 2000/1200/1000	12200
46707050	CABLE, TEL EXT 400/0.64 CPFUT MB	400	3125	760	47.5	500	MTO	STEEL - 2400/1200/1000	24500
46709250	CABLE, TEL EXT 400/0.64 CPFUT MBHJ (AIR TUBE)	400	3225	985	49.2	500	MTO	STEEL - 2400/1200/1000	24500
46707350	CABLE, TEL EXT 400/0.64 CPFUT MBHJSJ	400	3315	1005	50.1	500	MTO	STEEL - 2400/1200/1000	24500
46708261	CABLE, TEL EXT 10/0.90 CPFUT MBHJC	10	225	290	14.4	1000	Stock	LW3 - 1000/350/600	1200
46708263	CABLE, TEL EXT 30/0.90 CPFUT MBHJC	30	590	460	23.0	500	MTO	STEEL - 1200/600/1000	3600
46708264	CABLE, TEL EXT 50/0.90 CPFUT MBHJ	50	905	530	26.5	500	MTO	STEEL - 1600/800/900	6000
46708266	CABLE, TEL EXT 100/0.90 CPFUT MBHJ	100	1710	720	36.0	500	MTO	STEEL - 2000/1200/1000	12000



## 10 to 100 PAIR 0.40MM EXTERNAL CABLE – UNSCREENED

(For external underground applications)

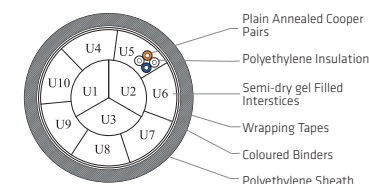
### Cable description:

Cable consists of up to 100 pairs of 0.40mm diameter plain annealed copper conductors, cellular polyethylene insulated, twinned, bunched into 10 pairs units, units laid up, semi-dry gel filled interstices, taped and polyethylene overall sheathed.

### Construction details:

Conductor: Plain annealed copper  
 Insulation: Cellular polyethylene  
 Cabling element: Twisted pair  
 Water blocking: Semi-dry gel (interstices)  
 Wrapping: Polyethylene terephthalate or paper tape  
 Outer sheath: Polyethylene (UV Stabilised)

### Cross sectional drawing:



100 Pair/0.40mm CPFUT PE (Drawing not to scale)

Electrical characteristics*:	
Maximum conductor resistance [ $\Omega$ /km]	139.3
Minimum insulation resistance [M $\Omega$ .km]	20000
Mutual capacitance - maximum average [nF/km]	49
Max. capacitance unbalance** Pair-Pair (Corrected to 1000m length) [pF]	70

\*Note: All electrical characteristics are given at 20°C

\*\*Note: Corresponds to the exponentially smoothed average

Mechanical / physical characteristics:					
Cable size Number of pairs / Diameter	Material Number	Nominal Diameter (mm)	Nominal Weight (kg/km)	Minimum Bend Diameter (mm)	Maximum Tensile Strength (N)
10 / 0.40	46705021	7.1	50	115	240
30 / 0.40	46705023	11.1	130	180	720
50 / 0.40	46705024	13.4	200	215	1200
100 / 0.40	46705026	18.1	375	290	2400
Operating temperature range [°C]: From - 10 to + 70					

**Specifications: Telstra CPFUT; AS/CA S008; AS/NZS 1125 and AS 1049**

The information contained in this data sheet is subject to normal manufacturing tolerances. Specifications are subject to change within the terms and conditions of relevant agreement and/or contract.



## 10 to 100 PAIR EXTERNAL CABLE - SCREENED HARD JACKETED

(For external underground applications)

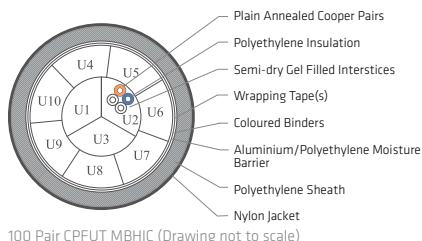
### Cable description:

Cable consists of a number of plain annealed copper conductors (0.40mm, 0.64mm or 0.9mm diameter), cellular polyethylene insulated, twinned, bunched into 10 pair units, units laid up, semi-dry gel filled interstices, taped, aluminium poly laminated moisture barrier, polyethylene overall sheathed and intrinsically bonded nylon jacketed.

### Construction details:

Conductor:	Plain annealed copper
Insulation:	Cellular polyethylene
Cabling element:	Twisted pair
Water blocking:	Semi-dry gel (interstices)
Wrapping:	Polyethylene terephthalate tape
Moisture barrier:	Aluminium/Polyethylene laminated tape
Sheath:	Polyethylene (UV Stabilised)
Jacket:	Nylon (UV Stabilised)

### Cross sectional drawing:



Electrical characteristics*:	Conductor size (mm)		
	0.40	0.64	0.90
Maximum conductor resistance [ $\Omega$ /km]	139.3	56.4	27.9
Minimum insulation resistance [M $\Omega$ .km]	20000	20000	20000
Mutual capacitance - maximum average [nF/km]	49	49	49
Max. capacitance unbalance** Pair-Pair (Corrected to 1000m length) [pF]	70	37	32

\*Note: All electrical characteristics are given at 20°C

\*\*Note: Corresponds to the exponentially smoothed average

Mechanical / physical characteristics:					
Cable size Number of pairs/Diameter	Material Number	Nominal Diameter (mm)	Nominal Weight (kg/km)	Minimum Bend Diameter (mm)	Maximum Tensile Strength (N)
100 / 0.40	46708226	18.5	400	370	2400
10 / 0.64	46708241	10.5	125	210	600
30 / 0.64	46708243	15.8	295	320	1800
50 / 0.64	46708244	19.8	470	400	3000
100 / 0.64	46708246	27.0	890	540	6100
10 / 0.90	46708261	14.4	225	290	1200
30 / 0.90	46708263	23.0	590	460	3600
50 / 0.90*	46708264	26.5	905	530	6000
100 / 0.90*	46708266	36.0	1710	720	12000

Operating temperature range [°C]: From - 10 to + 70

\*Note: Bonded nylon is not available for these items

**Specifications: Telstra CPFUT; AS/CA 5008; AS/NZS 1125 and AS 1049**

The information contained in this data sheet is subject to normal manufacturing tolerances. Specifications are subject to change within the terms and conditions of relevant agreement and/or contract.



## 10 to 50 PAIR 0.40MM EXTERNAL CABLE - UNSCREENED HARD JACKETED

(For external underground applications)

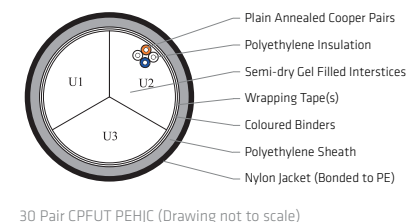
### Cable description:

Cable consists of up to 50 pairs of 0.40mm diameter plain annealed copper conductors, cellular polyethylene insulated, twinned, bunched into 10 pair units, units laid up, semi-dry gel filled interstices, taped, polyethylene overall sheathed and intrinsically bonded nylon jacketed.

### Construction details:

Conductor:	Plain annealed copper
Insulation:	Cellular polyethylene
Cabling element:	Twisted pair
Water blocking:	Semi-dry gel (interstices)
Wrapping:	Polyethylene terephthalate or paper tape
Sheath:	Polyethylene (UV Stabilised)
Jacket:	Nylon (UV Stabilised)

### Cross sectional drawing:



Electrical characteristics*	
Maximum conductor resistance [ $\Omega$ /km]	139.3
Minimum insulation resistance [M $\Omega$ .km]	20000
Mutual capacitance - maximum average [nF/km]	49
Max. capacitance unbalance** - Pair to pair (corrected to 1000m length) [pF]	70

\*Note: All electrical characteristics are given at 20°C

\*\*Note: Corresponds to the exponentially smoothed average

Mechanical / physical characteristics:					
Cable size Number of pairs/Diameter	Material Number	Nominal Diameter (mm)	Nominal Weight (kg/km)	Minimum Bend Diameter (mm)	Maximum Tensile Strength (N)
10 / 0.40	46708121	7.6	55	155	240
30 / 0.40	46708123	11.6	140	235	720
50 / 0.40	46708124	14.0	210	280	1200

Operating temperature range [°C]: From - 10 to + 70

**Specifications: Telstra CPFUT; AS/CA 5008; AS/NZS 1125 and AS 1049**

The information contained in this data sheet is subject to normal manufacturing tolerances. Specifications are subject to change within the terms and conditions of relevant agreement and/or contract.



## 200 to 800 PAIR EXTERNAL CABLE – SCREENED

(For external underground applications)

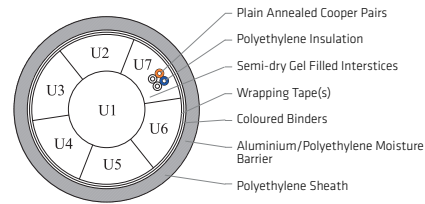
### Cable description:

Cable consists of a number of plain annealed copper conductors (0.40mm or 0.64mm), cellular polyethylene insulated, twinned, bunched into 10 pair sub-units then into (50 or 100) pair units, units laid up, semi-dry gel filled interstices, taped, aluminium poly laminated moisture barrier and polyethylene overall sheathed.

### Construction details:

Conductor:	Plain annealed copper
Insulation:	Cellular polyethylene
Cabling element:	Twisted pair
Water blocking:	Semi-dry gel (interstices)
Wrapping:	Polyethylene terephthalate tape
Moisture barrier:	Aluminium/Polyethylene laminated tape
Outer sheath:	Polyethylene (UV Stabilised)

### Cross sectional drawing:



400 Pair CPFUT MB (Drawing not to scale)

Electrical characteristics*:	Conductor Size [mm]	
	0.40	0.64
Maximum conductor resistance [ $\Omega$ /km]	139.3	56.4
Minimum insulation resistance [M $\Omega$ .km]	20000	20000
Mutual capacitance - maximum average [nF/km]	49	49
Max. capacitance unbalance** Pair-Pair (Corrected to 1000m length) [pF]	70	37

\*Note: All electrical characteristics are given at 20°C

\*\*Note: Corresponds to the exponentially smoothed average

Mechanical / physical characteristics:					
Cable size Number of pairs/Diameter	Material Number	Nominal Diameter (mm)	Nominal Weight (kg/km)	Minimum Bend Diameter (mm)	Maximum Tensile Strength (N)
200 / 0.40	46707028	22.0	690	355	4800
400 / 0.40	46707030	31.6	1355	510	9600
800 / 0.40	46707032	43.6	2615	700	19200
200 / 0.64	46707048	33.5	1580	540	12200
400 / 0.64	46707050	47.5	3125	760	24500
Operating temperature range [°C]: From - 10 to + 70					

### Specifications: Telstra CPFUT; AS/CA 5008; AS/NZS 1125 and AS 1049

The information contained in this data sheet is subject to normal manufacturing tolerances. Specifications are subject to change within the terms and conditions of relevant agreement and/or contract.



## 200 to 800 PAIR EXTERNAL CABLE – SCREENED HARD AND SACRIFICIAL JACKETED

(For external underground applications)

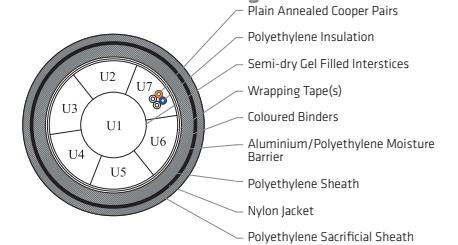
### Cable description:

Cable consists of a number of plain annealed copper conductors (0.40mm or 0.64mm), cellular polyethylene insulated, twinned, bunched into 10 pair sub-units then into (50 or 100) pair units, units laid up, semi-dry gel filled interstices, taped, aluminium poly laminated moisture barrier, polyethylene overall sheathed, nylon jacketed and polyethylene sacrificial sheathed.

### Construction details:

Conductor:	Plain annealed copper
Insulation:	Cellular polyethylene
Cabling element:	Twisted pair
Water blocking:	Semi-dry gel (interstices)
Wrapping:	Polyethylene terephthalate tape
Moisture barrier:	Aluminium/Polyethylene laminated tape
Sheath	Polyethylene
Hard jacket:	Nylon (UV Stabilised)
Outer sheath:	Polyethylene (UV Stabilised)

### Cross sectional drawing:



400 Pair CPFUT MBHJSJ (Drawing not to scale)

Electrical characteristics*:	Conductor Size [mm]	
	0.40	0.64
Maximum conductor resistance [ $\Omega$ /km]	139.3	56.4
Minimum insulation resistance [M $\Omega$ .km]	20000	20000
Mutual capacitance - maximum average [nF/km]	49	49
Max. capacitance unbalance** Pair-Pair (Corrected to 1000m length) [pF]	70	37

\*Note: All electrical characteristics are given at 20°C

\*\*Note: Corresponds to the exponentially smoothed average

Mechanical / physical characteristics:					
Cable size Number of pairs/Diameter	Material Number	Nominal Diameter (mm)	Nominal Weight (kg/km)	Minimum Bend Diameter (mm)	Maximum Tensile Strength (N)
200 / 0.40	46707328	24.5	780	490	4800
400 / 0.40	46707330	34.2	1480	680	9600
800 / 0.40	46707332	46.2	2790	925	19200
200 / 0.64	46707348	36.0	1715	720	12200
400 / 0.64	46707350	50.1	3315	1005	24500
Operating temperature range [°C]: From - 10 to + 70					

### Specifications: Telstra CPFUT; AS/CA 5008; AS/NZS 1125 and AS 1049

The information contained in this data sheet is subject to normal manufacturing tolerances. Specifications are subject to change within the terms and conditions of relevant agreement and/or contract.





## 100 PAIR EXTERNAL CABLE WITH AIRTUBE – SCREENED HARD JACKETED

(For external underground applications)

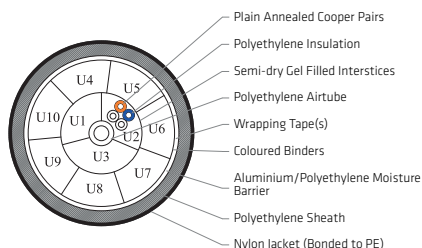
### Cable description:

Cable consists of a number of plain annealed copper conductors (0.40mm or 0.64mm), cellular polyethylene insulated, twinned, bunched into 10 pair units, units laid up, semi-dry gel filled interstices, taped, aluminium poly laminated moisture barrier, polyethylene overall sheathed and integrally bonded nylon jacketed. Cable is fitted with a polyethylene tube running along its central axis for pressurized air flow.

### Construction details:

Conductor:	Plain annealed copper
Insulation:	Cellular polyethylene
Cabling element:	Twisted pair
Water blocking:	Semi-dry gel (interstices)
Airtube:	Polyethylene 6/8mm ID/OD
Wrapping:	Polyethylene terephthalate tape
Moisture barrier:	Aluminium/Polyethylene laminated tape
Sheath:	Polyethylene (UV Stabilised)
Jacket:	Nylon (UV Stabilised)

### Cross sectional drawing:



Drawing not to scale

Electrical characteristics*:	Conductor Size [mm]	
	0.40	0.64
Maximum conductor resistance [ $\Omega$ /km]	139.3	56.4
Minimum insulation resistance [M $\Omega$ .km]	20000	20000
Mutual capacitance - maximum average [nF/km]	49	49
Max. capacitance unbalance** Pair-Pair (Corrected to 1000m length) [pF]	70	37

\*Note: All electrical characteristics are given at 20°C

\*\*Note: Corresponds to the exponentially smoothed average

Mechanical / physical characteristics:					
Cable size Number of pairs/Diameter	Material Number	Nominal Diameter (mm)	Nominal Weight (kg/km)	Minimum Bend Diameter (mm)	Maximum Tensile Strength (N)
100 / 0.40	46709226	20.9	440	420	2400
100 / 0.64*	46709246	27.0	900	540	6100
Operating temperature range [°C]: From - 10 to + 70					

\*Note: Bonded nylon is not available for this item

### Specifications: Telstra CPFUT; AS/CA 5008; AS/NZS 1125 and AS 1049

The information contained in this data sheet is subject to normal manufacturing tolerances. Specifications are subject to change within the terms and conditions of relevant agreement and/or contract



## 200 & 400 PAIR EXTERNAL CABLE WITH AIRTUBE – SCREENED HARD JACKETED

(For external underground applications)

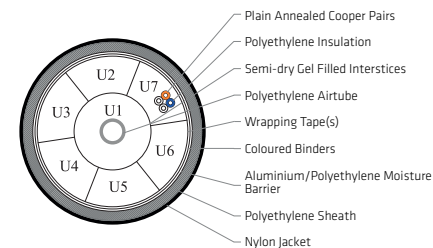
### Cable description:

Cable consists of a number of plain annealed copper conductors (0.40mm or 0.64mm), cellular polyethylene insulated, twinned, bunched into 10 pair sub-units then into (50 or 100) pair units, units laid up, semi-dry gel filled interstices, taped, aluminium poly laminated moisture barrier, polyethylene overall sheathed and nylon jacketed. Cable is fitted with a polyethylene tube running along its central axis for pressurized air flow.

### Construction details:

Conductor:	Plain annealed copper
Insulation:	Cellular polyethylene
Cabling element:	Twisted pair
Water blocking:	Semi-dry gel (interstices)
Wrapping:	Polyethylene terephthalate tape
Airtube:	Polyethylene 6/8mm ID/OD
Moisture barrier:	Aluminium/Polyethylene laminated tape
Sheath:	Polyethylene (UV Stabilised)
Hard jacket:	Nylon (UV Stabilised)

### Cross sectional drawing:



400 Pair Shown (Drawing not to scale)

Electrical characteristics*:	Conductor Size [mm]	
	0.40	0.64
Maximum conductor resistance [ $\Omega$ /km]	139.3	56.4
Minimum insulation resistance [M $\Omega$ .km]	20000	20000
Mutual capacitance - maximum average [nF/km]	49	49
Max. capacitance unbalance** Pair-Pair (Corrected to 1000m length) [pF]	70	37

\*Note: All electrical characteristics are given at 20°C

\*\*Note: Corresponds to the exponentially smoothed average

Mechanical / physical characteristics:					
Cable size Number of pairs/Diameter	Material Number	Nominal Diameter (mm)	Nominal Weight (kg/km)	Minimum Bend Diameter (mm)	Maximum Tensile Strength (N)
200 / 0.40	46709228	24.6	755	490	4800
400 / 0.40	46709230	33.7	1430	670	9600
200 / 0.64	46709248	34.5	1640	690	12200
400 / 0.64	46709250	49.2	3225	985	24500
Operating temperature range [°C]: From - 10 to + 70					

### Specifications: Telstra CPFUT; AS/CA 5008; AS/NZS 1125 and AS 1049

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## Distribution / Dry Core



Distribution cable is the most dense part of the Customer Access Network having typical pair counts in the range 600 to 2,400 (Up to 5,200 in metropolitan areas) and forms the main feed from an exchange to the first pillar, out towards the customer. Mostly cable in this segment of the network is protected from the ingress of moisture by means of air pressurisation. Alternatively, for areas that do not have pressurisation plant available, gel filled cables to 800 pair are available. Typically 0.32mm and 0.40mm conductors are used in metropolitan installations where distances are short, with some 0.64mm conductors used in rural situations or where longer distances are required. Single wires are insulated with foam (cellular) polyethylene to give the appropriate electrical characteristics, twisted into pairs, bunched into 10 pair sub-units and then laid-up into 50 and 100 pair units to form the basic building block for cables up to 2400 pairs or more. All cables have a black UV stabilised polyethylene overall sheath that incorporates a longitudinal aluminium moisture barrier to provide improved security to air pressurisation. Some cables may be fitted with a nylon anti-termite jacket if required. This group of cables is installed almost exclusively in underground conduits.



## Cable Information

Telstra Material Number	Material Description	Number of Pairs	Nominal weight (kg/ km)	Min. Bending Diameter (mm)	Overall Diameter (mm)	Standard Pack Length (m)	Stock/ MTO	Nominal Drum Dimensions (mm)	Max Hauling Tension (N)
47707015	CABLE, TEL EXT 4200/0.32 CPEIUT MB	4200	7940	1240	77.6	100	MTO	STEEL - 2250/1400/1000	40000
47707018	CABLE, TEL EXT 5200/0.32 CPEIUT MB	5200	9750	1370	85.6	100	MTO	STEEL - 2250/1400/1000	40000
47707025	CABLE, TEL EXT 800/0.40 CPEIUT MB	800	2455	700	43.6	100	MTO	STEEL - 2000/1200/1000	19000
47707027	CABLE, TEL EXT 1200/0.40 CPEIUT MB	1200	3610	840	52.4	100	MTO	STEEL - 2000/1200/1000	29000
47707327	CABLE, TEL EXT 1200/0.40 CPEIUT MBHJS	1200	3815	1100	54.9	100	MTO	STEEL - 2000/1200/1000	29000
47707029	CABLE, TEL EXT 1800/0.40 CPEIUT MB	1800	5315	1010	63.0	100	MTO	STEEL - 2250/1400/1000	40000
47707329	CABLE, TEL EXT 1800/0.40 CPEIUT MBHJS	1800	5670	1500	66.6	100	MTO	STEEL - 2700/1700/1600	40000
47707031	CABLE, TEL EXT 2400/0.40 CPEIUT MB	2400	7040	1150	72.1	100	MTO	STEEL - 2250/1400/1000	40000
47707331	CABLE, TEL EXT 2400/0.40 CPEIUT MBHJS	2400	7440	1700	75.7	100	MTO	STEEL - 2700/1700/1600	40000
47707045	CABLE, TEL EXT 800/0.64 CPEIUT MB	800	5815	1060	66.0	100	MTO	STEEL -	40000
47707345	CABLE, TEL EXT 800/0.64 CPEIUT MBHJS	800	6185	1565	69.6	100	MTO	STEEL - 2700/1700/1600	40000
47707047	CABLE, TEL EXT 1200/0.64 CPEIUT MB	1200	8620	1280	80.0	100	MTO	STEEL - 2250/1400/1000	40000
47707347	CABLE, TEL EXT 1200/0.64 CPEIUT MBHJS	1200	9070	1880	83.5	100	MTO	STEEL - 4000/2000/1600	40000
47707060	CABLE, TEL EXT 100/0.90 CPEIUT MB	100	1610	580	36.2	500	MTO	STEEL - 1800/1000/900	12000



## 100 to 5200 PAIR EXTERNAL UNFILLED CABLE - SCREENED

(For external underground applications)

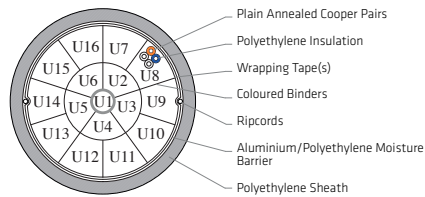
### Cable description:

Cable consists of a number of plain annealed copper conductors, cellular polyethylene insulated, twinned, bunched into 10 pair sub-units then into 50 or 100 pair units, units laid up, taped, aluminium poly laminated moisture barrier and polyethylene overall sheathed.

### Construction details:

Conductor:	Plain annealed copper
Insulation:	Cellular polyethylene
Cabling element:	Twisted pair
Wrapping:	Polyethylene terephthalate and paper tapes
Moisture barrier:	Aluminium/Polyethylene laminated tape
Sheath:	Polyethylene (UV Stabilised)

### Cross sectional drawing:



800 Pair CPEIUT MB (Drawing not to scale)

Electrical characteristics*:	Conductor Size [mm]			
	0.32 mm	0.40 mm	0.64 mm	0.90 mm
Maximum conductor resistance [ $\Omega$ /km]	232.9	139.3	56.4	27.9
Minimum insulation resistance [M $\Omega$ .km]	20000			
Mutual capacitance - maximum average [nF/km]	49			
Max. capacitance unbalance** Pair-Pair (Corrected to 500m length) [pF]	235	235	190	150

\*Note: All electrical characteristics are given at 20°C

\*\*Note: Corresponds to the exponentially smoothed average

### Mechanical / physical characteristics:

Cable size Number of pairs/Diameter	Material Number	Nominal Diameter (mm)	Nominal Weight (kg/km)	Minimum Bend Diameter (mm)	Maximum Tensile Strength (N)
4200 / 0.32	47707015	77.6	7940	1240	40000
5200 / 0.32	47707018	85.6	9750	1370	40000
800 / 0.40	47707025	43.6	2455	700	19000
1200 / 0.40	47707027	52.4	3610	840	29000
1800 / 0.40	47707029	63.0	5315	1010	40000
2400 / 0.40	47707031	72.1	7040	1150	40000
800 / 0.64	47707045	66.0	5815	1060	40000
1200 / 0.64	47707047	80.0	8260	1280	40000
100 / 0.90	47707060	36.2	1610	580	12000

Operating temperature range [°C]: From - 10 to + 70

Specifications: Telstra CPEIUT; AS/CA S008; AS/NZS 1125 and AS 1049

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## 800 to 2400 PAIR EXTERNAL UNFILLED CABLE - SCREENED HARD AND SACRIFICIAL JACKETED

(For external underground applications)

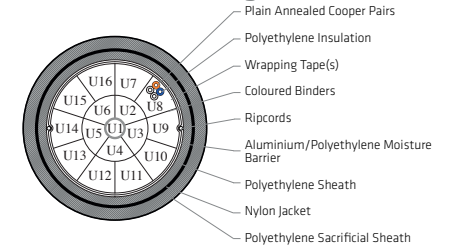
### Cable description:

Cable consists of a number of plain annealed copper conductors, cellular polyethylene insulated, twinned, bunched into 10 pair sub-units then into 50 or 100 pair units, units laid up, taped, aluminium poly laminated moisture barrier, polyethylene sheathed, nylon jacketed and polyethylene sacrificial sheathed.

### Construction details:

Conductor:	Plain annealed copper
Insulation:	Cellular polyethylene
Cabling element:	Twisted pair
Wrapping:	Polyethylene terephthalate and paper tapes
Moisture barrier:	Aluminium/Polyethylene laminated tape
Sheath:	Polyethylene
Jacket:	Nylon
Sacrificial sheath:	Polyethylene (UV Stabilised)

### Cross sectional drawing:



800 Pair CPEIUT MBHJS (Drawing not to scale)

Electrical characteristics*:	Conductor Size [mm]	
	0.40	0.64
Maximum conductor resistance [ $\Omega$ /km]	139.3	56.4
Minimum insulation resistance [M $\Omega$ .km]	20000	
Mutual capacitance - maximum average [nF/km]	49	
Max. capacitance unbalance** Pair-Pair (Corrected to 500m length) [pF]	235	190

\*Note: All electrical characteristics are given at 20°C

\*\*Note: Corresponds to the exponentially smoothed average

### Mechanical / physical characteristics:

Cable size Number of pairs/Diameter	Material Number	Nominal Diameter (mm)	Nominal Weight (kg/km)	Minimum Bend Diameter (mm)	Maximum Tensile Strength (N)
1200 / 0.40	47707327	54.9	3815	1100	29000
1800 / 0.40	47707329	66.6	5670	1500	40000
2400 / 0.40	47707331	75.7	7440	1700	40000
800 / 0.64	47707345	69.6	6185	1565	40000
1200 / 0.64	47707347	83.5	9070	1880	40000

Operating temperature range [°C]: From - 10 to + 70

Specifications: Telstra CPEIUT; AS/CA S008; AS/NZS 1125 and AS 1049

The information contained in this data sheet is subject to normal manufacturing tolerances. Specifications are subject to change within the terms and conditions of relevant agreement and/or contract



# Lead-In



Lead-in cable is used for the last drop from the access network to the customer's house. The cable has either two or five polyethylene insulated pairs, depending upon the application, and has similar transmission characteristics to the corresponding ranges of Distribution Cable.

Lead-in cables are available for installation either underground or aerially. Typically in metropolitan applications the lead-in is quite short, simply running from a street distribution cable to the first socket in the customer's premises that forms the network boundary.

However, in rural installations lead-in cables may be run for many kilometres in situations where a single dwelling is located a long distance from the road. In this circumstance the 2 pair 0.64mm conductor cable with Nylon termite resistant jacket is utilised.



# Cable Information

Telstra Material Number	Material Description	Number of Pairs	Nominal Weight (kg/ km)	Min. Bending Diameter (mm)	Overall Diameter (mm)	Standard Pack Length (m)	Stock/ MTO	Nominal Drum Dimensions (mm)	Max Hauling Tension (N)
49005023	CABLE, TEL LEAD-IN 2/0.40 PEIFLI PE	2	18.5	80	4.6	500	Stock	REELEX - 415/415/225 (MAGENTA)	50
49008123	CABLE, TEL LEAD-IN 2/0.40 PEIFLI PEHJC	2	19.5	100	4.7	500	Stock	1xREEL (338/102/230), CRTN (340/340/245)	50
49005741	CABLE, TEL LEAD-IN 2/0.64 PEILI PEIB	2	38	100	4.4 x 7.9	500	Stock	1xREEL (338/102/230), CRTN (340/340/245)	1000
49008142	CABLE, TEL LEAD-IN 2/0.64MM CPFLI PEHJC	2	35	100	6.2	500	Stock	1xREEL (422/102/306), CRTN (435/435/320)	120
49005024	CABLE, TEL LEAD-IN 5/0.40 PEIFLI PE	5	29	100	5.2	500	Stock	REELEX - 415/415/225 (MAGENTA)	120
49008124	CABLE, TEL LEAD-IN 5/0.40 PEIFLI PEHJC	5	34	110	5.8	500	Stock	1xREEL (422/102/306), CRTN (435/435/320)	120



## 2 PAIR 0.40MM EXTERNAL GEL FILLED LEAD-IN CABLE - HARD JACKETED

(For external underground applications)

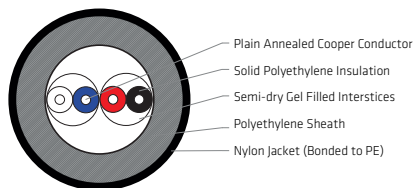
### Cable description:

Cable consists of 2 pairs 0.4mm diameter plain annealed copper conductors, solid polyethylene insulated, twinned pairs, semi-dry gel filled interstices, polyethylene sheathed and intrinsically bonded nylon jacketed (Alternative).

### Construction details:

Conductor: Plain annealed copper - 0.4mm  
 Insulation: Solid polyethylene  
 Cabling element: Twisted pairs  
 Water blocking: Semi-dry gel (interstices)  
 Sheath: Polyethylene (UV Stabilised)  
 Jacket (Alternative): Nylon (UV Stabilised)

### Cross sectional drawing:



2 Pair PEFLI PEHJ (Drawing not to scale)

#### Electrical characteristics\*:

Maximum conductor resistance [ $\Omega$ /km]	139.3
Minimum insulation resistance [M $\Omega$ .km]	40000
Mutual capacitance - maximum average [nF/km]	48
Max. capacitance unbalance (corrected to 1000m length) - Pair to pair [pF]	1200

\*Note: All electrical characteristics are given at 20°C

#### Mechanical / physical characteristics:

Cable size Number of pairs/Diameter	Material Number	Nominal Diameter (mm)	Nominal Weight (kg/km)	Minimum Bend Diameter (mm)	Maximum Tensile Strength (N)
2	49005023	4.6	18.5	80	50
2 (Hard jacket)	49008123	4.7	19.5	100	50

Operating temperature range [°C]: From - 10 to + 70

Specifications: Telstra PEIFLI and CPFLI; AS/CA 5008; AS/NZS 1125 and AS 1049

The information contained in this data sheet is subject to normal manufacturing tolerances. Specifications are subject to change within the terms and conditions of relevant agreement and/or contract



## 2 PAIR 0.64MM EXTERNAL JELLY FILLED LEAD-IN CABLE - HARD JACKETED

(For external underground applications)

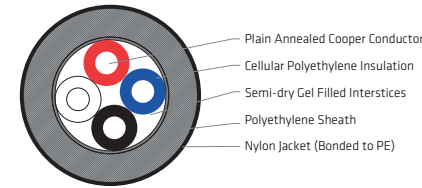
### Cable description:

Cable consists of 2 pairs 0.64mm diameter plain annealed copper conductors, cellular polyethylene insulated, twisted quad, semi-dry gel filled interstices, polyethylene sheathed and intrinsically bonded nylon jacketed.

### Construction details:

Conductor: Plain annealed copper - 0.64mm  
 Insulation: Cellular polyethylene  
 Cabling element: Quad  
 Water blocking: Semi-dry gel (interstices)  
 Sheath: Polyethylene (UV Stabilised) - Black  
 Jacket: Nylon (UV Stabilised) - Black

### Cross sectional drawing:



2 Pair CPFLI PEHJC (Drawing not to scale)

#### Electrical characteristics\*:

Maximum conductor resistance [ $\Omega$ /km]	56.4
Minimum insulation resistance [M $\Omega$ .km]	20000
Mutual capacitance - maximum average [nF/km]	48
Max. capacitance unbalance** (corrected to 1000m length) - Pair to pair [pF]	100

\*Note: All electrical characteristics are given at 20°C

\*\*Note: Corresponds to the exponentially smoothed average

#### Mechanical / physical characteristics:

Cable size Number of pairs/Diameter	Material Number	Nominal Diameter (mm)	Nominal Weight (kg/km)	Minimum Bend Diameter (mm)	Maximum Tensile Strength (N)
2 / 0.64	49008142	6.2	35	100	120

Operating temperature range [°C]: From - 10 to + 70

Specifications: Telstra PEIFLI and CPFLI; AS/CA 5008; AS/NZS 1125 and AS 1049

The information contained in this data sheet is subject to normal manufacturing tolerances. Specifications are subject to change within the terms and conditions of relevant agreement and/or contract



## 2 PAIR 0.64MM EXTERNAL AERIAL CABLE - INTEGRAL BEARER (FIGURE 8)

(For aerial self-supported applications)

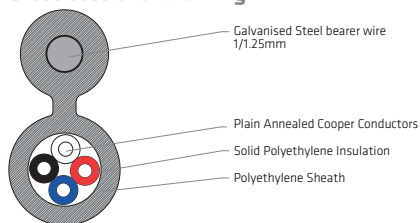
### Cable description:

Cable consists of 2 pairs 0.64mm diameter plain annealed copper conductors, solid polyethylene insulated, twisted quad and overall polyethylene sheathed incorporating a galvanised steel bearer wire in "figure 8" formation.

### Construction details:

Conductor:	Plain annealed copper - 0.64mm
Insulation:	Solid polyethylene
Cabling element:	Quad
Bearer Wire:	Galvanised steel wire - 1/1.25mm
Sheath:	Polyethylene (UV Stabilised)

### Cross sectional drawing:



2 Pair PEILI IB (Drawing not to scale)

#### Electrical characteristics\*:

Maximum conductor resistance [ $\Omega$ /km]	56.4
Minimum insulation resistance [M $\Omega$ .km]	40000
Mutual capacitance - maximum average [nF/km]	48
Max. capacitance unbalance (corrected to 1000m length) - Pair to pair [pF]	170
Max. capacitance unbalance (corrected to 500m length) - Pair to earth [pF]	2000

\*Note: All electrical characteristics are given at 20°C

#### Mechanical / physical characteristics:

Cable size Number of pairs/Diameter	Material Number	Nominal Diameter (mm)	Nominal Weight (kg/km)	Minimum Bend Diameter (mm)	Maximum Tensile Strength (N)
2 / 0.64	49005741	4.4 x 7.9	38	100	1000*

Operating temperature range [°C]: From -10 to +70

\* Tensile applied to the bearer

Specifications: Telstra PEIFLI and CPFLI; AS/CA 5008; AS/NZS 1125 and AS 1049

The information contained in this data sheet is subject to normal manufacturing tolerances. Specifications are subject to change within the terms and conditions of relevant agreement and/or contract



## 5 PAIR 0.40MM EXTERNAL GEL FILLED LEAD-IN CABLE - HARD JACKETED

(For external underground applications)

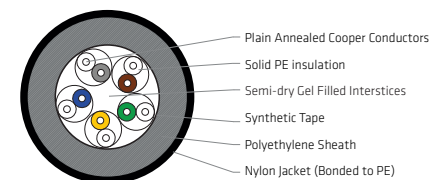
### Cable description:

Cable consists of 5 pairs 0.4mm diameter plain annealed copper conductors, solid polyethylene insulated, twinned, semi-dry gel filled interstices, taped, overall polyethylene sheathed and intrinsically bonded nylon jacketed (Alternative).

### Construction details:

Conductor:	Plain annealed copper - 0.4mm
Insulation:	Solid polyethylene
Cabling element:	Twisted pair
Water blocking :	Semi-dry Gel (interstices)
Sheath:	Polyethylene (UV Stabilised)
Jacket (Alternative):	Nylon (UV Stabilised)

### Cross sectional drawing:



5 Pair PEFLI PEHJ (Drawing not to scale)

#### Electrical characteristics\*:

Maximum conductor resistance [ $\Omega$ /km]	139.3
Minimum insulation resistance [M $\Omega$ .km]	40000
Mutual capacitance - maximum average [nF/km]	48
Max. capacitance unbalance (corrected to 1000m length) - Pair to pair [pF]	1200

\*Note: All electrical characteristics are given at 20°C

#### Mechanical / physical characteristics:

Cable size Number of pairs/Diameter	Material Number	Nominal Diameter (mm)	Nominal Weight (kg/km)	Minimum Bend Diameter (mm)	Maximum Tensile Strength (N)
2	49005024	5.2	29	100	120
5 (Hard jacket)	49008124	5.8	34	110	120

Operating temperature range [°C]: From -10 to +70

Specifications: Telstra PEIFLI and CPFLI; AS/CA 5008; AS/NZS 1125 and AS 1049

The information contained in this data sheet is subject to normal manufacturing tolerances. Specifications are subject to change within the terms and conditions of relevant agreement and/or contract



## Internal / UTP Category 3



Internal cable is only ever used indoors within telephone exchanges or customer's premises and as such is not rated for external applications. Conductors are either of 0.40mm diameter for use in telephone exchanges or 0.50mm for use in customer's premises. Conductor insulation is of solid polyethylene designed to meet Class C (0.5mm conductor only) requirements as per AS/NZS 11801.1 - Generic Cabling for Customer Premises (ISO/IEC 11801). Wires are twisted together to form pairs and then grouped together in various combinations to form the completed cable. Typically, cables are formed into units as the external cables. Overall protection is by means of an off-white coloured flame retarding PVC sheath.

The cable has to comply with specified flame propagation requirements and as such is suitable for installation in vertical building risers and for horizontal runs between equipment racks.

This section also includes internal cable for the wiring of AXE Exchanges comprising 0.40mm diameter conductors insulated with nylon, twisted and bunched into 8 pair units as appropriate. The required number of units is combined together and outer fire retarding PVC sheathed to complete the cable.



## Cable Information

Telstra Material Number	Material Description	Number of Pairs	Nominal Weight (kg/ km)	Min. Bending Diameter (mm)	Overall Diameter (mm)	Standard Pack Length (m)	Stock/ MTO	Nominal Drum Dimensions (mm)	Max Hauling Tension (N)
32300162	CABLE, TEL INT 3 PAIR/0.40MM PET/PV	3	22	45	4.4	250	Stock	REELEX - 320/320/190 (YELLOW)	70
32300163	CABLE, TEL INT 25 PAIR/0.40MM PET/PV	25	108	95	9.2	250	Stock	LW1 - 600/250/480	600
32300164	CABLE, TEL INT 100 PAIR/0.40MM PET/PV	100	419	180	17.6	250	Stock	LW1 - 600/250/480	2400
32300165	CABLE, TEL INT 2 PAIR/0.50MM PET/ PV CAT3	2	19	40	3.9	500	Stock	REELEX - 360/360/225 (YELLOW)	75
32300166	CABLE, TEL INT 3 PAIR/0.50MM PET/ PV CAT3	3	27	50	4.8	305	Stock	REELEX - 360/360/225 (YELLOW)	110
32300167	CABLE, TEL INT 25 PAIR/0.50MM PET/ PV CAT3	25	150	110	11.5	250	Stock	LW1 - 600/250/480	935
32300168	CABLE, TEL INT 100 PAIR/0.50MM PET/ PV CAT3	100	535	200	21.3	250	Stock	LW2 750/250/600	3750
32306563	CABLE, TEL INT NHT PV 0.40 16 WIRE	8	34	51	5.1	500	Stock	REEL (338/102/230), CRTN (340/340/245)	200
32306568	CABLE, TEL INT NHT PV 0.40 64 WIRE	32	104	82	8.2	500	Stock	PD4 - 560/250/450	770



## INTERNAL EXCHANGE TELEPHONE CABLE

(For indoor telephone exchange applications)

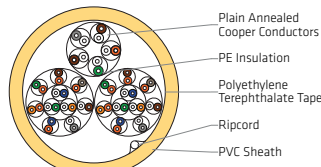
### Cable description:

Plain annealed copper conductors, solid polyethylene insulated, twisted pair, unit construction for 25 and 100 pair cables, taped and PVC overall sheathed. Cable is designed for use within telephone exchanges, commercial switchboards and interconnecting wiring systems.

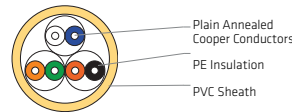
### Construction details:

Conductor: Plain annealed copper - 0.40mm diameter  
 Insulation: Solid polyethylene  
 Pair identification:  
 3 pair cable: Pair 1 White - Blue  
 Pair 2 Red - Black  
 Pair 3 Orange - Green  
 All other pairs: Pair 1 White - Blue  
 Pair 2 White - Orange  
 Pair 3 White - Green  
 Pair 4 White - Brown  
 Pair 5 White - Grey  
 Units: 5 pairs (pairs 1 to 5); 10 pairs (pairs 1 to 10)  
 Unit identification (Unit Binder Colours):  
 Pairs 1 to 10 White - Blue  
 Pairs 11 to 20 White - Orange  
 Pairs 21 to 30 White - Green  
 Pairs 31 to 40 White - Brown  
 Pairs 41 to 50 White - Grey  
 Pairs 51 to 60 Blue - Blue  
 Pairs 61 to 70 Orange - Orange  
 Pairs 71 to 80 Green - Green  
 Pairs 81 to 90 Brown - Brown  
 Pairs 91 to 100 Grey - Grey  
 Tape: Polyethylene terephthalate (Except 3 pairs)  
 Sheath: PVC 75°C - Manila

### Cross sectional drawing:



25 Pair PET PV (Drawing not to scale)



3 pair PET PV (Drawing not to scale)

### Electrical characteristics\*:

Maximum conductor resistance [ $\Omega$ /km]	147.6
Minimum insulation resistance [M $\Omega$ .km]	20000
Mutual capacitance - maximum average [nF/km]	52
Max. capacitance unbalance (corrected to 500m length) - Pair to pair [pF]	350

\* Note: All electrical characteristics are given at 20 °C

### Mechanical / physical characteristics:

Cable size Number of pairs/Diameter	Material Number	Nominal Diameter (mm)	Nominal Weight (kg/km)	Minimum Bend Diameter (mm)	Maximum Tensile Strength (N)
3 / 0.40	32300162	4.4	22	45	70
25 / 0.40	32300163	9.2	108	95	600
100 / 0.40	32300164	17.6	419	180	2400

Operating temperature range [°C]: From - 10 to + 60

### Specifications: Telstra Internal Exchange Cable; AS/CA 5008; AS/NZS 1125 and AS 1049

The information contained in this data sheet is subject to normal manufacturing tolerances. Specifications are subject to change within the terms and conditions of relevant agreement and/or contract



## INTERNAL AXE EXCHANGE TELEPHONE CABLE

(For indoor use in the wiring of AXE exchanges)

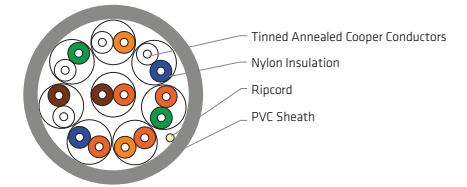
### Cable description:

Cable consists of a number of tinned annealed copper conductors (0.40mm diameter), nylon insulated, twinned, laid-up in concentric layers and PVC V-75 overall sheathed.

### Construction details:

Conductor: Tinned annealed copper  
 Insulation: Nylon  
 Cabling element: Twisted pair - Colour coded  
 Sheath: PVC 75°C  
 Sheath colour: Grey

### Cross sectional drawing:



16 Wire NHT PV (Drawing not to scale)

### Electrical characteristics:

Maximum conductor resistance [ $\Omega$ /km]	153
Minimum insulation resistance [M $\Omega$ .km]	10
Mutual capacitance - maximum average [nF/km]	100
Max. capacitance unbalance (corrected to 1000m length) - Pair to pair [pF]	150

### Mechanical / physical characteristics:

Cable size Number of pairs/Diameter	Material Number	Nominal Diameter (mm)	Nominal Weight (kg/km)	Minimum Bend Diameter (mm)	Maximum Tensile Strength (N)
16 Wires/0.40mm	32306563	5.1	34	51	200
64 Wires/0.40mm	32306568	8.2	104	82	770

Operating temperature range [°C]: From - 10 to + 60

### Specifications: Telstra Internal AXE Exchange Cable; L.M.E. series TEN 2503 Uen; AS/NZS 1125 and AS 1049

The information contained in this data sheet is subject to normal manufacturing tolerances. Specifications are subject to change within the terms and conditions of relevant agreement and/or contract.





## INTERNAL TELEPHONE / DATA CABLE - UTP CATEGORY 3

(For indoor interconnecting cabling systems)

### Cable description:

Plain annealed copper conductors, solid polyethylene insulated, twisted pair, unit construction for 25 and 100 pair cables, taped and PVC overall sheathed. Cable is designed for use within telephone exchanges, commercial switchboards and interconnecting wiring systems. These cables have been upgraded to Category 3, 100Ω balanced, suitable for Local Area Network (LAN) network cabling (up to 16 MHz). Data-grade UTP, capable of supporting transmission rates of up to 16Mbps. Cable is suitable for 100 Base T4, IEEE 802.3 and 4 Mbps Token Ring systems.

### Construction details:

Conductor: Plain annealed copper - 0.50mm diameter

Insulation: Solid polyethylene

Pair identification:

2 & 3 pair cable: Pair 1 White - Blue, Pair 2 Red - Black, Pair 3 Orange - Green

All other pairs: Pair 1 White - Blue, Pair 2 White - Orange, Pair 3 White - Green,

Pair 4 White - Brown, Pair 5 White - Grey, Pair 6 Red - Blue,

Pair 7 Red - Orange, Pair 8 Red - Green, Pair 9 Red - Brown,

Pair 10 Red - Grey

Units 5 pairs (pairs 1 to 5); 10 pairs (pairs 1 to 10)

Unit identification (Unit Binder Colours):

Pairs 1 to 10 White - Blue, Pairs 11 to 20 White - Orange,

Pairs 21 to 30 White - Green, Pairs 31 to 40 White - Brown,

Pairs 41 to 50 White - Grey, Pairs 51 to 60 Blue - Blue,

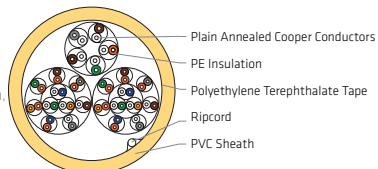
Pairs 61 to 70 Orange - Orange, Pairs 71 to 80 Green - Green,

Pairs 81 to 90 Brown - Brown, Pairs 91 to 100 Grey - Grey

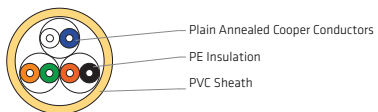
Tape: Polyethylene terephthalate (Except 2 & 3 pairs)

Sheath: PVC 75°C - Manila

### Cross sectional drawing:



25 Pair PET PV (Drawing not to scale)



3 pair PET PV (Drawing not to scale)

### Electrical characteristics\*:

DC resistance [ $\Omega$ /100m]	9.38 Max.
Resistance unbalance [%]	5.0 Max.
Characteristic impedance [ $\Omega$ ]	100 $\pm$ 15 @ 1.0 - 16.0 MHz
Capacitance unbalance [pF/100m] pair to ground @ 0.8 or 1.0 kHz	330 Max.

\*Note: All electrical characteristics are given at 20°C

### Attenuation and Near End Crosstalk (NEXT)

Frequency [MHz]	Max. Attenuation [dB/100m]	Min. Pr-Pr NEXT [dB/100m]
0.256	1.3	N/A
0.512	1.8	N/A
0.772	2.2	43.0
1.0	2.6	41.3
4.0	5.6	32.3
8.0	8.5	27.8
10.0	9.7	26.3
16.0	13.1	23.2



### Mechanical / physical characteristics:

Cable size Number of pairs/Diameter	Material Number	Nominal Diameter (mm)	Nominal Weight (kg/km)	Minimum Bend Diameter (mm)	Maximum Tensile Strength (N)
2 / 0.50	32300165	3.9	19	40	75
3 / 0.50	32300166	4.8	27	50	110
25 / 0.50	32300167	11.5	150	110	950
100 / 0.50	32300168	21.3	535	200	3750

Operating temperature range [°C]: From - 10 to + 60

Specifications: Telstra Internal Customer; AS/CA S008; AS/NZS 11801.1; ISO/IEC 11801; AS/NZS 1125

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## Jumper Wire



Jumper wire is the simplest of all telephone cables, used for jumping circuits in pillars and MDF's. Available in 2 wires with either 0.40 and 0.50mm conductors. The wires are twisted together with a short pitch to form a pair.

Conductor insulation is by means of flame retarding PVC that is tough and resistant to cutting and abrasion to prevent damage when jumpered across MDF blocks and sharp edges that are often encountered in some installations.



## Cable Information

Telstra Material Number	Material Description	Number of Pairs	Nominal Weight (kg/km)	Min. Bending Diameter (mm)	Overall Diameter (mm)	Standard Pack Length (m)	Stock/ MTO	Nominal Drum Dimensions (mm)	Max Hauling Tension (N)
00300244	WIRE, JUMPER 2/0.4 WHITE - BLUE	1	3	15	1.5	400	Stock	12 REELS (204/102/52), CRTN (418/208/370)	24
00300249	WIRE, JUMPER 2/0.5 GREEN - WHITE	1	5	20	1.8	400	Stock	12 REELS (204/102/52), CRTN (418/208/370)	38
00300250	WIRE, JUMPER 2/0.5 RED - WHITE	1	5	20	1.8	400	Stock	12 REELS (204/102/52), CRTN (418/208/370)	38

Note: A standard carton contains 10 reels (4000m) and weighs approximately 20kg. A pallet contains 24 cartons (240 reels or 96,000m) and weighs approximately 525kg



## PVC INSULATED INTERNAL JUMPER WIRE

(For interconnection within telephone exchanges and allied internal applications)

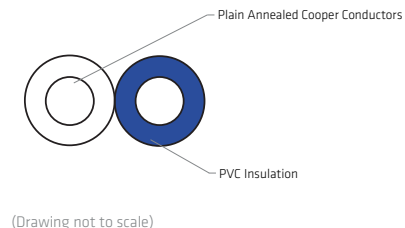
### Cable description:

Cable consists of a number of plain annealed copper conductors (0.4mm or 0.5mm diameter), PVC insulated and twisted.

### Construction details:

Conductor: Plain annealed copper  
 Insulation: PVC  
 Cabling element: Twisted pair

### Cross sectional drawing:



Electrical characteristics*:	Conductor Size [mm]	
	0.40	0.50
Maximum conductor resistance [ $\Omega$ /km]	147.6	94.5
Minimum insulation resistance [M $\Omega$ km]	1000	1000

\*Note: All electrical characteristics are given at 20°C

Mechanical / physical characteristics:					
Cable size Number of pairs/Diameter	Material Number	Nominal Diameter (mm)	Nominal Weight (Kg/Km)	Minimum Bend Diameter (mm)	Maximum Tensile Strength (N)
2 Wires/0.40	00300244	1.5	3	15	24
2 Wires/0.50	00300249	1.8	5	20	38
2 Wires/0.50	00300250	1.8	5	20	38

**Operating temperature range [°C]: From - 10 to + 60**

**Specifications: Telstra PVC Insulated Jumper Wire; AS/CA S008; AS/NZS 1125 and AS 1049**

The information contained in this data sheet is subject to normal manufacturing tolerances. Specifications are subject to change within the terms and conditions of relevant agreement and/or contract



## Station



Station cable is a balanced twisted pair cable for the interconnection of high speed equipment racks. It comes in pair counts ranging from 1 to 32 suitable for the transmission of baseband signals to 1.024MHz and ATM digital signals to 155 Mb/s. The cable is designed for use within telephone exchanges and equipment rooms and is not suited to external installation. The cable has carefully controlled transmission characteristics by way of impedance, attenuation and crosstalk to assure the required level of performance is achieved. The copper conductors are nominally 0.5mm in diameter and are insulated with a specially formulated non-halogenated flame retarding polymer; twin twisted and bunched into 8 pair units as appropriate. The required number of units is then combined together with an overall screen and outer flame retarding PVC sheath to complete the cable.



# Cable Information

Telstra Material Number	Material Description	Number of Pairs	Nominal Weight (kg/km)	Min. Bending Diameter (mm)	Overall Diameter (mm)	Standard Pack Length (m)	Stock/ MTO	Nominal Drum Dimensions (mm)	Max Hauling Tension (N)
35300344	CABLE, STATION SCREENED BALANCED 1 PAIR	1	24	70	4.5	250	Stock	REELEX - 360/360/215 (ORANGE)	40
35300865	CABLE, STATION SCREENED BALANCED 4 PAIR (16C)	4	79	120	8.9	250	Stock	REELEX - 360/360/215 (ORANGE)	150
35300346	CABLE, STATION SCREENED BALANCED 8 PAIR	8	82	135	8.9	250	Stock	LW1 - 600/250/480	300
35300614	CABLE, STATION SCREENED BALANCED 10 PAIR	10	94	145	9.4	250	Stock	LW1 - 600/250/480	375
35300348	CABLE, STATION SCREENED BALANCED 32 PAIR	32	238	245	16.3	250	Stock	LW1 - 600/250/480	1200
35300360	CABLE, STATION UNSCREEN BALANCED 1 PR (JUMPER)	1	5	25	2.2	250	Stock	12REELS (204/102/52), CRTN (418/208/370)	40



## DIGITAL MULTI-PAIR BALANCED SCREENED STATION CABLE

(For transmission equipment applications)

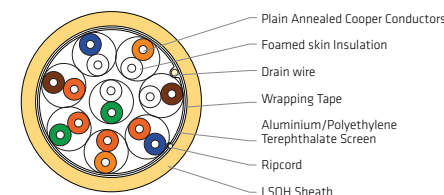
### Cable description:

Cable consists of a number of plain annealed copper conductors (0.50mm diameter) insulated with a dual extrusion comprising an inner layer of cellular polyethylene and an outer solid skin of non-halogenated, self-extinguishing compound, twisted pairs, individual (only 4 pair cable) and/or overall screened, laid up in concentric layers (except 32 pair which consists of 8 pair cross-stranded units) and sheathed with low smoke and fume, halogen free thermoplastic.

### Construction details:

- Conductor: Plain annealed copper - 0.50mm
- Insulation: Cellular Polyethylene / Noryl (Solid Skin)
- Cabling element: Twisted pair
- Wrapping: Foamed Polypropylene Tape
- Wrapping: Polyethylene Terephthalate Tape
- Drain Wire: Tinned annealed copper 0.5mm nominal diameter
- Screen: Aluminium/polyethylene terephthalate tape
- Sheath: Low Smoke Zero Halogen

### Cross sectional drawing:



8 Pair Station (Drawing not to scale)

Electrical characteristics*:	
Maximum conductor resistance [ $\Omega$ /km]	94.5
Characteristic impedance [ $\Omega$ ]	120
Max. mean mutual capacitance [nF/km]	45
Max. Capacitance unbalance Pair-Earth (Corr. to 250m length)[pF]	500

\*Note: All electrical characteristics are given at 20 °C

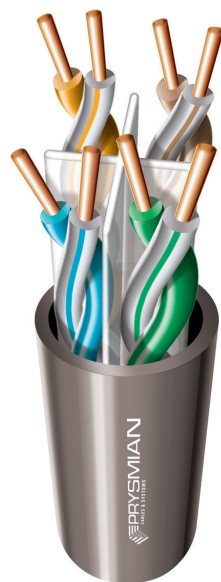
Mechanical / physical characteristics:					
Cable size Number of pairs/Diameter	Material Number	Nominal Diameter (mm)	Nominal Weight (kg/km)	Minimum Bend Diameter (mm)	Maximum Tensile Strength (N)
1 / 0.50	35300344	4.5	24	70	40
4 / 0.50 16C	35300865	8.9	79	120	150
8 / 0.50	35300346	8.9	82	135	300
10 / 0.50	35300614	9.4	94	145	375
32 / 0.50	35300348	16.3	238	245	1200
1 / 0.50 JW	35300360	2.2	5	25	40
<b>Operating temperature range [°C]: From - 10 to + 60</b>					

**Specifications: Telstra Specification 1557 Part 4, Issue 3; AS/NZS 1125 and AS 1049**

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# LAN



Local Area Network (LAN) cable is supplied as unshielded twisted pairs (UTP) in either Category 5e (Class D) and Category 6 (Class E) as required. The construction and performance of these cables is defined in AS/NZS 11801.1 Generic Cabling for Customer Premises (ISO/IEC 11801). Cables have 4 twisted pairs of nominally 0.51mm conductor diameter, insulated with polyethylene and flame retardant PVC sheathed.

The cable is designed for all LAN applications where gigabit ethernet, broadband digital video, etc. at distances of up to 90m is required. Cable is UL listed.



# Cable Information

Telstra Material Number	Material Description	Number of Pairs	Nominal Weight (kg/km)	Min. Bending Diameter (mm)	Overall Diameter (mm)	Standard Pack Length (m)	Stock/ MTO	Nominal Drum Dimensions (mm)	Max Hauling Tension (N)
57200359	CABLE, CAT5E UTP 4/0.51 BLUE	4	31	40	5.0	305	Stock	REELEX - 415/415/275 (GREEN)	150
57200459	CABLE, CAT5E UTP 4/0.51 GREY	4	31	40	5.0	305	Stock	REELEX - 415/415/275 (GREEN)	150
57200256	CABLE, CAT6 UTP 4/0.51 GREY	4	40	50	6.0	305	Stock	REEL IN A BOX - 270/300/310 (RED)	190



## 4PAIR/0.51 MM UNSHIELDED TWISTED PAIR (UTP) ENHANCED CATEGORY 5

(For transmissions equipment applications)

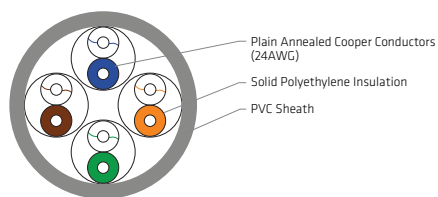
### Cable description:

Plain annealed copper conductors, solid polyethylene insulated, twisted pair, flame retardant PVC overall sheathed. 100Ω balanced cable suitable for Local Area Network (LAN) for horizontal distribution and backbone network cabling (100 MHz). Suitable for 16 Mbps Token Ring/155 Mbps ATM PMD/100 Base - VG, T4, X, 1000 Base T (Gigabit Ethernet), etc. Cable is UL listed.

### Construction details:

Conductor: Plain annealed copper - 24 AWG  
 Insulation: Polyethylene  
 Core Identification: Pair 1 White-Blue stripes/Blue  
 Pair 2 White-Orange stripes/Orange  
 Pair 3 White-Green stripes /Green  
 Pair 4 White-Brown stripes /Brown  
 Outer sheath: PVC 75°C  
 Sheath colour: Grey (Alternatively Blue)

### Cross sectional drawing:



(Drawing not to scale)

Dimensions and mass:	
Overall cable diameter (nominal):	5.0 mm
Mass (nominal):	31 kg/km

Electrical characteristics*:	
DC resistance [Ω/100m]	9.38 Max.
Resistance unbalance [%]	5.0 Max.
Characteristic impedance [Ω]	100 ± 15 @ 1-100 MHz
Mutual capacitance [nF/100m]	5.6 Max. @ 1kHz
Capacitance unbalance [pF/100m]	330 Max. (pair to earth) @ 1kHz
Delay skew [ns/100m]	45 Max. @ 1-100MHz
Propagation delay [ns/100m]	538 Max. @ 100MHZ

Mechanical / physical characteristics:	
Minimum bending radius [mm]	40
Maximum pulling tension [N]	150
Operating temperature range [°C]	- 20 to + 60

Flame resistance characteristics:	
Cable meets AS/NZS IEC 60332.1: "Test for vertical flame propagation for a single insulated wire or cable"	

\*Note: All electrical characteristics are given at 20°C

Freq.	Attenuation @20°C Max	NEXT Min	Power Sum NEXT Min	ACRF Min	Power Sum ACRF Min	Return Loss Min
[MHz]	[dB/100m]	[dB/100m]	[dB/100m]	[dB/100m]	[dB/100m]	[dB/100m]
1	2.0	65.3	62.3	63.8	60.8	20.0
4	4.1	56.3	53.3	51.8	48.8	23.0
10	6.5	50.3	47.3	43.8	40.8	25.0
16	8.2	47.2	44.2	39.7	36.7	25.0
20	9.3	45.8	42.8	37.8	34.8	25.0
31.25	11.7	42.9	39.9	33.9	30.9	23.6
62.5	17.0	38.4	35.4	27.9	24.9	21.5
100	22.0	35.3	32.3	23.8	20.8	20.1

Specifications: EIA/TIA 568, AS/NZS 3080, ISO/IEC 11801 (Class D) and AS/CA S008  
 Material numbers: 57200459 (Grey); 57200359 (Blue) - Available in 305m length in dispenser cartons (Reel boxes)

The information contained in this data sheet is subject to normal manufacturing tolerances. Specifications are subject to change within the terms and conditions of relevant agreement and/or contract



## 4PAIR/0.51MM UNSHIELDED TWISTED PAIR (UTP) CATEGORY 6

(For transmissions equipment applications)

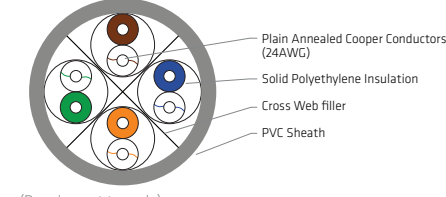
### Cable description:

Plain annealed copper conductors, polyethylene insulated, twisted pair, flame retardant PVC overall sheathed. 100Ω balanced cable suitable for Local Area Network (LAN) for high-speed horizontal distribution network cabling (250 MHz). Suitable for 100 Mbps TPDDI, 622 Mbps ATM, 1000 Base T, IEEE 802.3 6 IEEE 802.5, Gigabit Ethernet, broadband digital video, etc. Cable is UL listed.

### Construction details:

Conductor: Plain annealed copper - 24 AWG  
 Insulation: Solid polyethylene  
 Core Identification: Pair 1 White-Blue stripes/Blue  
 Pair 2 White-Orange stripes/Orange  
 Pair 3 White-Green stripes /Green  
 Pair 4 White-Brown stripes /Brown  
 Outer sheath: PVC 75°C  
 Sheath colour: Grey - Standard  
 Blue - Alternative

### Cross sectional drawing:



(Drawing not to scale)

Electrical characteristics*:	
DC resistance [Ω/100m]	9.38 Max.
Resistance unbalance [%]	5.0 Max.
Characteristic impedance [Ω]	100 @ 1-250 MHz
Mutual capacitance [nF/100m]	5.6 Max. @ 1kHz
Capacitance unbalance [pF/100m]	330 Max. (pair to earth) @ 1kHz
Delay skew [ns/100m]	45 Max. @ 1-250 MHz
Propagation delay [ns/100m]	536 Max. @ 250 MHz

Dimensions and mass:	
Overall cable diameter (nominal):	6.0 mm
Mass (nominal):	40 kg/km

Mechanical / physical characteristics:	
Minimum bending radius [mm]	50
Maximum pulling tension [N]	190
Operating temperature range [°C]	- 20 to + 60

Flame resistance characteristics:	
Cable meets AS/NZS IEC 60332.1: "Test for vertical flame propagation for a single insulated wire or cable"	

\*Note: All electrical characteristics are given at 20°C

Freq.	Attenuation @ 20°C Max	NEXT Min	Power Sum NEXT Min	ACRF Min	Power Sum ACRF Min	Return Loss Min
[MHz]	[dB/100m]	[dB/100m]	[dB/100m]	[dB/100m]	[dB/100m]	[dB/100m]
1	2.0	74.3	72.3	67.8	64.8	20.0
4	3.8	65.3	63.3	55.8	52.8	23.0
10	6.0	59.3	57.3	47.8	44.8	25.0
16	7.6	56.2	54.2	43.7	40.7	25.0
20	8.5	54.8	52.8	41.8	38.8	25.0
31.25	10.7	51.9	49.9	37.9	34.9	23.6
62.5	15.4	47.4	45.4	31.9	28.9	21.5
100	19.8	44.3	42.3	27.8	24.8	20.1
200	29.0	39.8	37.8	21.8	18.8	18.0
250	32.8	38.3	36.3	19.8	16.8	17.3

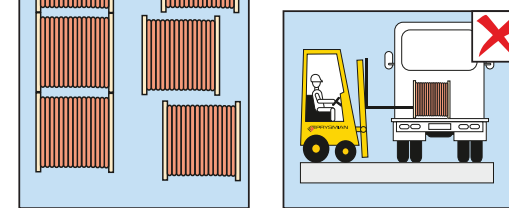
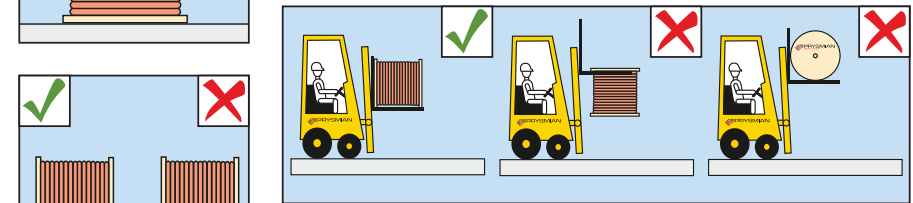
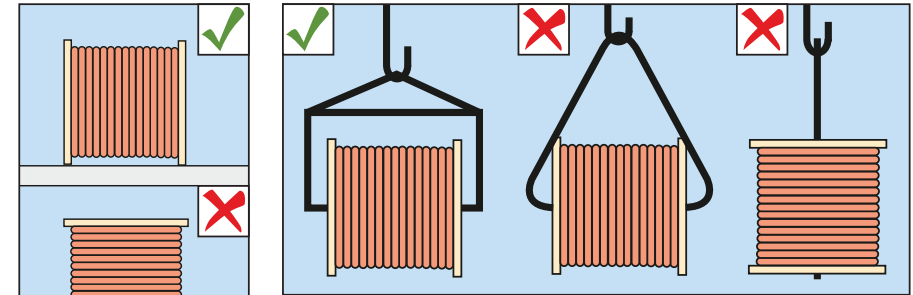
Specifications: EIA/TIA 568; ISO/IEC 11801 (Class E); AS/CA S008;  
 Material number: 57200256 - Available in 305m length in dispenser cartons (Reel boxes)

The information contained in this data sheet is subject to normal manufacturing tolerances. Specifications are subject to change within the terms and conditions of relevant agreement and/or contract

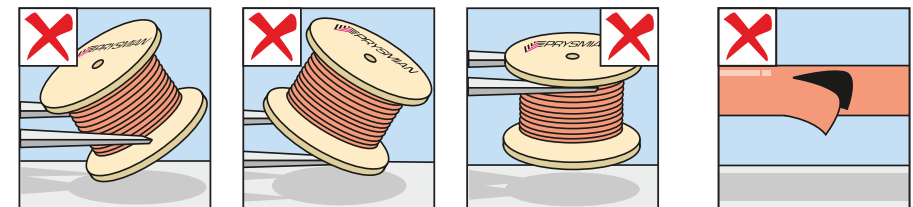
# General Information



## TRANSPORT, HANDLING AND STORAGE GUIDELINES



Do not use the fork lift tynes to push cable drums sideways on a truck tray or the ground as damage to the flanges can result in the drum being unacceptable to customers.



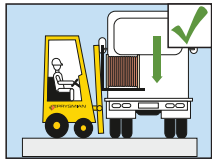
Do not attempt to lift drums of cable without inserting the fork lift tynes fully under both flanges as the tynes can damage the cable, making it unserviceable. Do not attempt to lift drums by the flange or to lift drums into the upright (correct) position by lifting the top flanges as it may break the flange from the drum barrel. The drum will then be undeliverable. Use a length of steel pipe through the centre of the drum to provide leverage and control.

This cable has been rendered unserviceable through fork lift tine damage and may necessitate the scrapping of the whole drum.

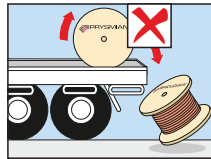
When rewinding cables, drums shall be of suitable construction and in good condition. All drums shall be held firmly in appropriate pay-off stands to prevent vibration and ensure smooth, even rotation to minimise inner end cable grow-out and tangling. Cables shall be wound evenly and uniformly, then secured.



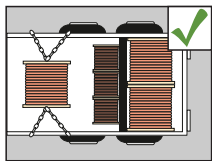
## TRANSPORT, HANDLING AND STORAGE GUIDELINES



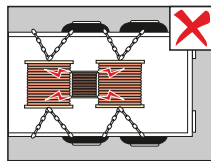
Lower drums gently onto the ground or transport.



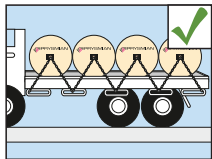
Lower drums gently onto the ground or transport.



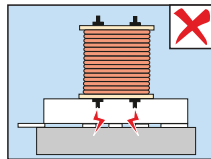
Always protect cable from rubbing or damage. Adjust load or use separators.



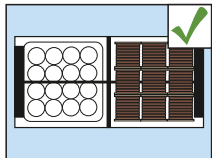
Never let drum flanges contact cable on adjacent drums.



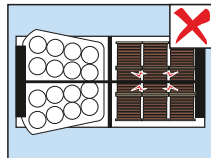
Heavy drums should be chained appropriately for transit, with protection from the chain rubbers for the spindle hole in the centre of the drum. Under no circumstances are drums to be transported on their side.



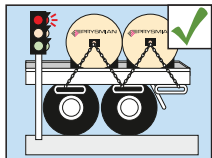
Never lay drums on their side, even on top of pallets, as protruding bolts damage spools and cable.



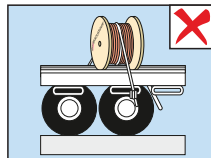
Always protect product, especially spools, against rope damage during tying down of load.



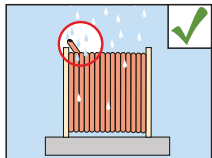
Never use rope directly over shrinkwrapped cable.



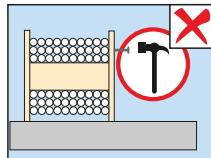
Ensure drums are restrained to restrict movement during sudden stop/starts.



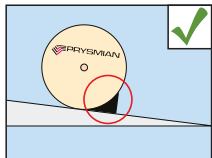
When securing drums for transit, do not place ropes or chains over cable as damage can occur to the outer insulation rendering the cable unserviceable.



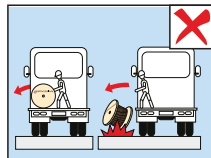
Ensure cable sealing is intact so moisture cannot seep into cable. Report damage.



Avoid use of additional nails on drums or cable. Flange thicknesses vary and some customers prohibit their use.



When placing drums on an uneven surface be prepared to check drums against rolling and chock if required.



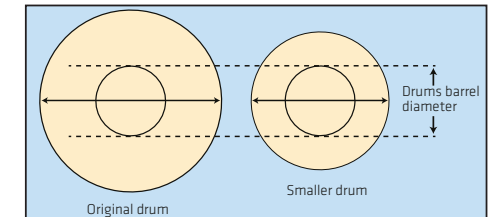
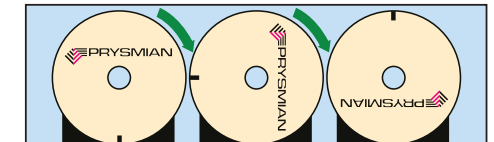
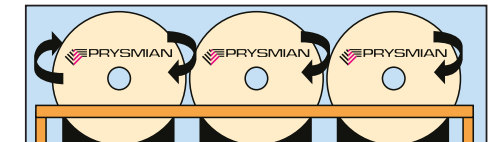
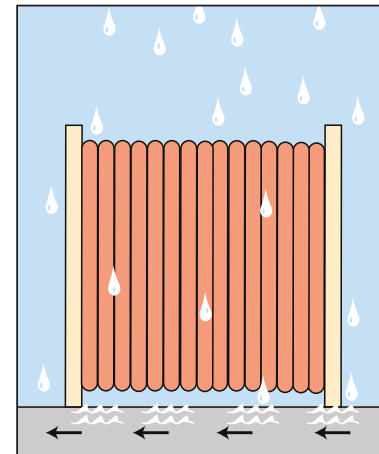
Do not roll cable drums from the back of a delivery truck to the ground as the resulting flange damage will be unacceptable to the customer as the cable will not be able to be rolled off the drum and the drum will need to be returned.



## STORAGE RECOMMENDATIONS

When storing cable drums for long periods, please take the following guidelines into consideration:

- ✓ Select a site for storage that is level and dry, preferably indoors with a concrete surface, with no risk of falling objects, chemical spills (oil, grease, etc.) open flames and excessive heat.
- ✓ If indoors, and concrete storage is not available, select a well-drained surface that will prevent the reel flanges sinking into it.
- ✓ The drums must always be stored with their flanges vertical.
- ✓ Leave enough space between stored drums for air circulation.
- ✓ If drums are stored in a high traffic area (fork lifts frequent transit) suitable barriers should be erected to prevent damage from moving equipment.
- ✓ The bolts should be tightened at regular intervals.
- ✓ During storage, the drums should be rolled to an angle of 90° every three months.
- ✓ When only a portion of the cable is used, the open end of the cable remaining on the drum should immediately be re-sealed to prevent the entrance of moisture. Once it has been re-sealed, the cut end should be fixed to the inside edge of the drum flange to prevent the end from extending beyond the flanges during drum movement.
- ✓ When it is required to rewind the cable on to another drum, always consider that the diameter of the new drum barrel should be at least the same size of the original drum barrel diameter.



Always use appropriate safety





## PRYSMIAN CABLE DRUM RETURNS

### Prysmian drum pick up locations

Prysmian will only pick up drums from the following logistics centres.

STATE	Logistics Centre	Address	Postcode
NSW	Erskine Park	33-38 Quarry Rd. (Shed4 - CEVA)	2759
NSW	Campbelltown	261 Queen St.	2560
NSW	Botany	12 Lord St.	2019
NSW	Regents Park	391 Park St.	2143
NSW	Toormina	113-21 Craft Cl.	2452
NSW	Mayfield West	609 Maitland Rd.	2304
NSW	Dubbo	45 Sheraton Rd.	2830
NSW	Penrith	90-92 Henry St.	2750
NSW	Symonston	12 Faulding St. (via Wormald St.)	2609
NSW	Beresfield	40 Enterprise Dr.	2322
NT	Winnellie	1847 Stuart Hwy.	820
Qld	Boondall	186 Zillmere Rd.	4034
Qld	Berrinba	2-56 Australand Dr.	4117
Qld	Toowoomba	Lot 2, 44-58 Duhig St, Harristown	4350
Qld	Rockhampton	Cnr Bruce Hwy and Willam Palfrey Rd., Parkhurst	4702
Qld	Mackay	Depot 89 Broadsound Rd., Paget	4740
Qld	Townsville	Ceva Depot 33-43 Kelli St. Mount St. John	4818
Qld	Cairns	Dept 131 Andersen St., Manunda	4870
SA	Netley	7 Hudson Ct.	5037
TAS	Derwent Park	7 Bender Dr.	7009
VIC	Mulgrave	227 Wellington Rd.	3170
VIC	Bendigo	25-31 Abel St.	3550
VIC	Broadmeadows	37 Camp Rd.	3047
VIC	Wendouree	515 Dowling St.	3355
WA	Kewdale	138 Kewdale Rd.	6105

For drums supplied directly to Telstra contractors, Prysmian will only pick up from the primary metropolitan depot of the contractor in each capital city.



### Residual lengths of cable

There is a cost associated with removal and disposal of residual cable. Prysmian will not pick up drums containing more than 100m of cable. Prysmian will charge a scrap cable removal and disposal fee of \$50 per drum.

### Wooden drums

In recent years the return and re-use of wooden drums has become uneconomical. Although wooden drums are owned by Prysmian, Prysmian grants permission for Telstra and/or its contractors to dispose of wooden drums after use.

Prysmian will pick-up wooden drums if requested.

### Metal drums

Metal drums are to be returned to Prysmian. For clarity, Prysmian does not grant permission to Telstra or its contractors to dispose of metal drums.

### Drum return process

Where pick-up of Prysmian drums is requested, a Drum Return Request Form must be completed and only contain Prysmian drums that have been used for transport of Telstra cable. Drum Return Request Forms can be obtained by emailing [sales.telecom.au@prysmiangroup.com](mailto:sales.telecom.au@prysmiangroup.com). Please mark the form "Prysmian/Telstra drums only". Email the form to [drums.au@prysmiangroup.com](mailto:drums.au@prysmiangroup.com) with cc: to [sales.telecom.au@prysmiangroup.com](mailto:sales.telecom.au@prysmiangroup.com). Emails sent to these addresses are received by Prysmian's transport provider (TOLL) and Prysmian representatives. Upon receipt of the completed form, Prysmian team will assign a provider (TOLL/Bingo) who will contact the sender to arrange pick-up. Prysmian reserves the right to assign a suitable provider depending on the nature of pick up (location/number of drums/other factors). Should anyone from Telstra or its contractors need to speak with someone from Prysmian, a contact number 1300 300 304 is provided on the form.

Only Prysmian drums are to be returned to Prysmian. Please note that any non-Prysmian drum pick up will incur a charge of \$1000 per drum.

Prysmian reserves the right to limit pick-ups to full truck load.



## CABLE PACKAGING

Prismian Group uses a robust packaging to protect your valuable cable investment during transportation and delivery.

The cable wrap is made entirely of Polyethylene (PE) material and is 100% recyclable.

The polymer material is a strong, light weight, flexible packaging that acts as a shock absorber for the cable. The wrap is UV stabilised and moisture and weather proof so it enables longer term outside storage.

It is an extremely quick, simple and safe material to work with. It takes only a few seconds to remove the wrap and the strapping from the drum and so does not pose the same safety risk as removing timber lagging containing nails and splinters.



## DRUM DIMENSIONS

Drum Type		Flange	Barrel	Internal Width	Overall Width	Drum Weight (kg)
DPA045A	Plastic	450	250	300	300	4
DPA058A	Plastic	580	250	300	300	6
DPA058C	Plastic	580	250	380	380	6
DWA075A	Timber	600	250	480	580	15
DWA100A	Timber	750	250	600	710	22
DWA110A	Timber	1000	350	600	730	51
DWA125A	Timber	1100	400	600	730	61
DWA110G	Timber	1250	450	600	740	70
DWA120K	Timber	1100	600	600	750	62
DWA120I	Timber	1200	800	600	650	75
DWA130A	Timber	1300	800	800	980	118
DWA140J	Timber	1400	800	800	980	130
DWA160F	Timber	1600	800	800	980	157
DWA180B	Timber	1800	800	800	980	290
DWA200A	Timber	2000	900	800	980	400
DWA220B	Timber	2200	900	850	1000	480

Drum Type		Flange	Barrel	Internal Width	Overall Width	Drum Weight (kg)
DSA120J	Metal	1200	600	1000	1110	140
DSA140I	Metal	1400	700	1000	1110	205
DSA140N	Metal	1400	900	900	1010	235
DSA140K	Metal	1400	800	900	1010	225
DSA150A	Metal	1500	1000	1000	1110	235
DSA160B	Metal	1600	800	750	860	230
DSA160H	Metal	1600	800	900	1010	250
DSA170C	Metal	1700	1200	900	1010	305
DSA180E	Metal	1800	1000	900	1010	360
DSA180H	Metal	1800	1200	1000	1110	405
DSA200D	Metal	2000	1000	1000	1110	420
DSA200G	Metal	2000	1200	1000	1110	395
DSA210A	Metal	2100	1000	1000	1110	500
DSA210B	Metal	2100	1200	1040	1150	525
DSA210C	Metal	2100	1400	1000	1110	550
DSA225A	Metal	2250	1050	1030	1140	700
DSA225B	Metal	2250	1400	1000	1110	750
DSA240J	Metal	2400	1400	840	950	650
DSA240K	Metal	2400	1400	1000	1110	700
DSA240A	Metal	2400	1200	1000	1110	700
DSA240L	Metal	2400	1400	1500	1610	900
DSA220F	Metal	2200	1000	950	1060	480



## TELSTRA / PRYSMIAN OPTICAL CONTRACT ITEMS

Material Number	Product Description	Maximum Drum Length (Metres)
40009913	12F DUCT SINGLES@RT	12000
40010738	36F DUCT SM@RTLINK	12000
40010739	72F DUCT SM@RTLINK	12000
40010740	144F DUCT SM@RTLINK	12000
40010869	360F DUCT FLEXTUBE	7000
40007900	720F DUCT FLEXTUBE	7000
48436136	36F HIGH STRENGTH BONDED	10500
48436172	72F HIGH STRENGTH BONDED	10500
48436544	144F HIGH STRENGTH BONDED	5000
48453136	36F RODENT DIELECTRIC	12000
48453172	72F RODENT DIELECTRIC	12000
48453544	144F RODENT DIELECTRIC	7000
40010128	360F RODENT DIELECTRIC	5000
48431112	12F AERIAL	6000
48431172	72F AERIAL	6000
48450172	72F RIVER CROSSING	Contact Prysmian
48450544	144F RIVER CROSSING	Contact Prysmian
48450712	312F RIVER CROSSING	Contact Prysmian
40007901	720F RIVER CROSSING	Contact Prysmian
48462112	12F SM SM@RTCORE INTERNAL TIE	12000
48462172	72F SM SM@RTCORE INTERNAL TIE	12000
48462544	144F SM SM@RTCORE INTERNAL TIE	12000
48462712	312F SM SM@RTCORE INTERNAL TIE	10000
48492112	12F SM INDOOR/OUTDOOR RISER	2000
48492124	24F SM INDOOR/OUTDOOR RISER	2000
48392312	12F OM4-PLUS MMOF INDOOR/OUTDOOR RISER	2000
48392324	24F OM4-PLUS MMOF INDOOR/OUTDOOR RISER	2000
48393306	6F OM4-PLUS MMOF BREAKOUT	2000
48393312	12F OM4-PLUS MMOF BREAKOUT	2000
48300001	PATCHCORD MM OM4-PLUS TYPE 2.0MM DIAMETER	2000
48300002	2F ZIPCORDER MM OM4-PLUS	2000
48410000	SM PATCHCORD 2.0MM DIAMETER	4000
48420000	2F SM ZIPCORDER FIGURE 8 2.0MM	4000



## TELSTRA / PRYSMIAN METALLIC CONTRACT ITEMS

Telstra Material Number	Product Description	Maximum Drum Length (Metres)
47707047	1200PAIR/0.64MM CPEIUT-MB	470
47707347	1200PAIR/0.64MM CPEIUT-MBHJS	450
47707027	1200PR/0.40MM CPEIUT-MB	1200
47707327	1200PR/0.40MM CPEIUT-MBHJS	1050
47707029	1800PR/0.40MM CPEIUT-MB	700
47707031	2400 PR/0.40 CPEIUT-MB	580
47707331	2400 PR/0.40 CPEIUT-MBHJS	540
47707015	4200PAIR/0.32MM CPEIUT-MB	400
47707018	5200PAIR/0.32MM CPEIUT-MB	350
47707329	1800PR/0.40MM CPEIUT-MBHJS	500
46707028	200PAIR/0.40MM CPFUT/MB	1000
46709228	200PAIR/0.40MM CPFUT/MBHJC AIR TUBE	2000
46707328	200PAIR/0.40MM CPFUT/MBHJS	2000
46709230	400PAIR/0.40MM CPFUT/MBHJC AIR TUBE	2000
46707030	400PAIR/0.40MM CPFUT/MB	2000
46707330	400PAIR/0.40MM CPFUT/MBHJS	2000
46709248	200PAIR/0.64MM CPFUT/MBHJC AIR TUBE	2000
46707048	200PAIR/0.64MM CPFUT/MB	2000
46707348	200PAIR/0.64MM CPFUT/MBHJS	2000
46707350	400 PR/0.64 CPFUT/MBHJS	1100
46709250	400PAIR/0.64MM CPFUT/MBHJC AIR TUBE	1150
46707050	400PAIR/0.64MM CPFUT/MB	1200
47707025	800 PR/0.40 CPEIUT-MB	1680
46707032	800PAIR/0.40MM CPFUT/MB	1450
47707045	800PAIR/0.64MM CPEIUT-MB	750
46707332	800PAIR/0.40MM CPFUT/MBHJS	1300
47707345	800PAIR/0.64MM CPEIUT-MBHJS	750
46708121	10PAIR/0.40MM CPFUT/PEHJ BONDED	1000
46705021	10PAIR/0.40MM CPFUT-PE	1000
46708123	30PAIR/0.40MM CPFUT/PEHJC BONDED	1000
46705023	30PAIR/0.40MM CPFUT-PE	1000
46705024	50PAIR/0.40MM CPFUT/PE	1000
46708124	50PAIR/0.40MM CPFUT/PEHJC BONDED	1000
46708226	100PAIR/0.40MM CPFUT/MBHJC BONDED	1000
46705026	100PAIR/0.40MM CPFUT/PE	1000
46708241	10PAIR/0.64MM CPFUT/MBHJC Bonded	1000
46708243	30PAIR/0.64MM CPFUT/MBHJC BONDED	1000
46708244	50PAIR/0.64MM CPFUT/MBHJC BONDED	1000
46709226	100 PR/0.40 CPFUT-MBHJC AIR TUBE	3000
46709246	100 PR/0.64 CPFUT-MBHJC AIR TUBE	2000
46708246	100PAIR/0.64MM CPFUT/MBHJC BONDED	1000
46708261	10PAIR/0.90MM CPFUT/MBHJC BONDED	1000
46708263	30PAIR/0.90MM CPFUT/MBHJC BONDED	3500



## TELSTRA / PRYSMIAN METALLIC CONTRACT ITEMS

Telstra Material Number	Product Description	Maximum Drum Length (Metres)
46707464	50PAIR/0.90MM CPFUT/MBHJ	2000
47707060	100 PR/0.90 CPEIUT-MB	1000
46707466	100 PR/0.90MM CPFUT-MBHJ	1000
46505221	10PAIR/0.40MM PEIUT/IB	500
46505241	10PAIR/0.64MM PEIUT/IB	500
46505243	30PAIR/0.64MM PEIUT-IB	2000
46505224	50PAIR/0.40MM PEIUT/IB	500
46505244	50PAIR/0.64MM PEIUT-IB	500
46505226	100PAIR/0.40MM PEIUT/IB	500
46505246	100PAIR/0.64MM PEIUT/IB	500
57200459	CAT5E UTP 4/0.51 GREY 305M	305
57200256	CAT6 UTP 4 PAIR 305M	305
57200359	CAT5E UTP 4/0.51 BLUE 305M	305
32300165	2 PAIR/0.50MM PEQ/PV Cat 3	500
32300166	3 PAIR/0.50MM PET/PV CAT3	305
32300162	3 PAIR/0.40MM PET/PV	250
32300163	25 PAIR/0.40MM PET/PV	250
32300167	25 PAIR/0.50MM PET/PV CAT3	250
32306563	CABLE,TEL INT NHT PV 0.40 16 WIRE	500
32306568	CABLE,TEL INT NHT PV 0.40 64 WIRE	500
32300168	100 PAIR/0.50MM PET/PV CAT3	250
32300164	100 PAIR/0.40MM PET/PV	250
00300249	2CORE/0.50MM PVC GN/WH JUMPER WIRE	400
00300250	2CORE/0.50MM PVC RD/WH JUMPER WIRE	400
00300244	2CORE/0.40MM PVC WH/BU JUMPER WIRE	400
49005023	2PAIR/0.40MM PEIFLI/PE	500
49008123	2PAIR/0.40MM PEIFLI/PEHJC BONDED	500
49005024	5 PR/0.40 PEIFLI/PE	500
49008124	5 PR/0.40 PEIFLI/PEHJC BONDED	500
49008142	2PAIR/0.64MM CPFLI/PEHJC BONDED	500
49005741	2PAIR/0.64MM PEILI/PEIB	500
35300344	1 PAIR/0.50MM SCREENED STATION	250
35300360	1 PR / 0.50 UNSCR. STATION JUMPER WIRE	250
35300865	4 PR / 0.50 IND SCR. STATION	250
35300346	8 PR / 0.50 SCR. STATION	250
35300614	10 PR / 0.50 SCR. STATION	250
35300348	32 PR / 0.50 SCR. STATION	250



## QUALITY CLAIMS

Whilst we, at Prysmian Group, continually strive to deliver what our customers want every time, on time in the correct quantity and according to specification, occasionally we fail to meet customer expectations. On these occasions, we value your feedback to help us identify the problems and implement change to ensure that they are not repeated.

Every complaint we receive is treated seriously and investigated until the cause is identified and corrective actions put in place.

To enable us to do this and to process the claim effectively we need a certain amount of information and, in the case of a product non-conformance, we may require a sample of the affected cable so that we can analyse what went wrong.

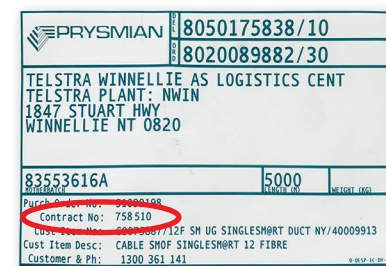
There are two ways to lodge a complaint. The simplest and most effective way is to use the aforementioned Cable@Prysmian website. Alternatively, you may call our Customer Service office on 1300 300 304. Please have the following information available to speed up the process.

- ✓ Your contact details
- ✓ Description of product and Prysmian product code
- ✓ Nature of complaint
- ✓ Quantity affected
- ✓ Cable Number
- ✓ Drum number
- ✓ Your order number
- ✓ Invoice number or delivery advice
- ✓ Any other relevant information

The cable number or ticket number is the most important piece of information required to identify the affected cable. It can be found in the sheath printing on the cable as per the example below:



Alternatively, if cable is still packed on drum, the contract number on the drum label must be quoted for traceability.



Upon receipt of a claim, Prysmian Group will conduct an initial investigation and assess risk providing a response within 24 hours. A full investigation will follow and a formal report issued.

**NON-Hazardous Substance, NON-Dangerous Goods****1. MATERIAL AND SUPPLY COMPANY IDENTIFICATION****Product name:** Telstra PVC Insulated Jumper Wire**Synonyms:** Telstra PVC Insulated Jumper Wire  
**Item Number(s):** 300 series**Recommended use:** Cable is for the transmission of voice and data in a range of frequencies.**Supplier:** Prysmian Australia Pty Ltd  
**ACN:** 096 594 080  
**Street Address:** 1 Heathcote Road  
Liverpool NSW 2170  
Australia  
**Telephone:** +612 9600-0777  
**Emergency telephone number:** Quality & HSE Director: 0412 054 611**2. HAZARDS IDENTIFICATION****AUSTRALIA CLASSIFICATION**

Based on available information, this material is not classified as hazardous according to criteria of Safe Work Australia.

**Poisons Schedule (Aust):** Not applicable**NEW ZEALAND CLASSIFICATION**

Based on available information, this material is not classified as hazardous according to criteria of ERMA New Zealand.

**DANGEROUS GOODS CLASSIFICATION**

Not classified as Dangerous Goods by the criteria of the "Australian Code for the Transport of Dangerous Goods by Road &amp; Rail" and the "New Zealand NZS5433: Transport of Dangerous Goods on Land".

**3. COMPOSITION INFORMATION**

CHEMICAL ENTITY	CAS NO.	PROPORTION
Copper	7440-50-8	>60%
Polyvinyl chloride (PVC) insulation	-	<30%
Ingredients determined to be non-hazardous	-	Balance
		100%

**Product name:** Telstra PVC Insulated Jumper Wire**Substance Key:** SDS-ME01**Issued:** 24/01/20**Version:** 1.2**Page:** 1 of 5

**4. FIRST AID MEASURES**

If poisoning occurs, contact a doctor or Poisons Information Centre (Phone Australia 131 126, New Zealand 0800 764 766).

**Inhalation:** Not an expected route of exposure. However, if dust exposure occurs during cutting, remove victim from exposure. Remove contaminated clothing and loosen remaining clothing. Allow patient to assume most comfortable position and keep warm. Keep at rest until fully recovered. Seek medical advice if effects persist.

**Skin contact:** If puncture wounds, cuts or irritation occurs, flush skin with running water. Seek medical assistance if bleeding from puncture wounds or cuts cannot be stemmed. Seek medical assistance if irritation occurs.

**Eye contact:** If in eyes wash out immediately with water. In all cases of eye contamination it is a sensible precaution to seek medical advice.

**Ingestion:** Not an expected route of exposure. However, if material is ingested, rinse mouth with water. If swallowed, do NOT induce vomiting. Give a glass of water to drink. Never give anything by the mouth to an unconscious patient. If vomiting occurs give further water. Seek medical advice.

**Notes to physician:** Treat symptomatically.

**5. FIRE-FIGHTING MEASURES**

**Specific hazards:** PVC component will burn if ignited.

**Fire fighting further advice:** On burning may emit toxic fumes. Fire fighters to wear self-contained breathing apparatus and suitable protective clothing if risk of exposure to vapour or products of combustion.

**Hazchem Code:** Not applicable.

**Suitable extinguishing media:** If material is involved in a fire use water fog (or if unavailable fine water spray), foam, dry agent (carbon dioxide, dry chemical powder). If material is in service use foam or dry agents (carbon dioxide, dry chemical powder).

**6. ACCIDENTAL RELEASE MEASURES**

Wear protective equipment to prevent skin and eye contamination. Avoid inhalation of dust if present. Collect for reuse or recycling.

**Dangerous Goods – Initial Emergency Response Guide No:** Not applicable.

**7. HANDLING AND STORAGE**

**Handling:** All staff shall be suitably trained in the handling of metallic cables. Avoid eye contact. Avoid skin contact with cut ends of cable.

**Storage:** Store in a cool, dry, well-ventilated place and out of direct sunlight. Store away from incompatible materials described in Section 10.

**Product name:** Telstra PVC Insulated Jumper Wire

**Substance Key:** SDS-ME01

**Issued:** 24/01/20

**Version:** 1.2

**Page:** 2 of 5

**8. EXPOSURE CONTROLS / PERSONAL PROTECTION****National occupational exposure limits:**

No value assigned for this specific material by Safe Work Australia or Department of Labour New Zealand.

However for:	TWA ppm	mg/m3	STEL ppm	mg/m3	CARCINOGEN CATEGORY	NOTICES
Copper (dust & mist) (as Cu)	-	1	-	-	-	-

As published by the Safe Work Australia or Department of Labour New Zealand.

TWA - The time-weighted average airborne concentration over an eight-hour working day, for a five-day working week over an entire working life.

STEL (Short Term Exposure Limit) - the average airborne concentration over a 15 minute period which should not be exceeded at any time during a normal eight-hour workday.

These Exposure Standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept too as low a level as is workable. These exposure standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity.

If the directions for use on the product label are followed, exposure of individuals using the product should not exceed the above standard. The standard was created for workers who are routinely, potentially exposed during product manufacture.

**Biological Limit Values:** As per the "National Model Regulations for the Control of Workplace Hazardous Substances (Safe Work Australia)" the ingredients in this material do not have a Biological Limit Allocated.

**Engineering measures:** Natural ventilation should be adequate under normal use conditions. Keep containers closed when not in use.

**Personal protection equipment:** OVERALLS, SAFETY SHOES, SAFETY GLASSES, GLOVES.

Wear overalls, safety glasses and impervious gloves. Available information suggests that gloves made from leather should be suitable for intermittent contact. However, due to variations in glove construction and local conditions, the user should make a final assessment. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storing or re-using. If risk of inhalation of exists (copper dust & mist), wear organic vapour/particulate respirator meeting the requirements of AS/NZS 1715 and AS/NZS 1716.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

**Form / Colour / Odour:** Twisted pairs and quads of copper wire in a range of outside diameters.

<b>Solubility:</b>	Insoluble in water
<b>Specific Gravity (20 °C):</b>	N Av
<b>Relative Vapour Density (air=1):</b>	N App
<b>Vapour Pressure (20 °C):</b>	N App
<b>Flash Point (°C):</b>	N App
<b>Flammability Limits (%):</b>	N App
<b>Autoignition Temperature (°C):</b>	N Av

**Product name:** Telstra PVC Insulated Jumper Wire

**Substance Key:** SDS-ME01

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**Melting Point/Range (°C):** N Av  
**Boiling Point/Range (°C):** N App  
**Decomposition Point/Range (°C):** >200  
**pH:** N App  
**Viscosity:** N App  
**Evaporation Rate (n-Butyl acetate=1):** N App  
**Total VOC (g/Litre):** N Av  
 (Typical values only - consult specification sheet)  
 N Av = Not available      N App = Not applicable

**10. STABILITY AND REACTIVITY**

**Chemical stability:** This material is thermally stable when stored and used as directed.

**Conditions to avoid:** Elevated temperatures and sources of ignition.

**Incompatible Materials:** Oxidising agents.

**Hazardous decomposition products:** Oxides of carbon and nitrogen, smoke and other toxic fumes.

**Hazardous reactions:** No known hazardous reactions.

**11. TOXICOLOGICAL INFORMATION**

No adverse health effects expected if the product is handled in accordance with this SDS and the product label. Symptoms or effects that may arise if the product is mishandled and overexposure occurs are:

**Acute Effects**

**Inhalation:** Not expected to be a route of exposure. However, exposure to fine material due to mechanical cutting or abrading may be irritant to mucous membranes and respiratory tract.

**Skin contact:** Cut ends of copper wire and cable may cause abrasive irritation, cuts or puncture wounds. Contact with skin may result in irritation.

**Eye contact:** May be an eye irritant. Exposure to the dust may cause discomfort due to particulate nature. May cause physical irritation to the eyes.

**Ingestion:** Not expected to be a route of exposure. Swallowing can result in nausea, vomiting and irritation of the gastrointestinal tract.

**Long Term Effects:** No information available for product.

**Acute toxicity / Chronic toxicity:** No LD50 data available for the product.

**12. ECOLOGICAL INFORMATION**

Avoid contaminating waterways.

**Eco-toxicity:** No information available.

**Persistence and degradability:** No information available.

**Mobility:** No information available.

**Product name:** Telstra PVC Insulated Jumper Wire

**Substance Key:** SDS-ME01

**Issued:** 24/01/20

**Version:** 1.2

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**13. DISPOSAL CONSIDERATIONS**

Refer to State/Territory Land Waste Management Authority.

**14. TRANSPORT INFORMATION****ROAD AND RAIL TRANSPORT**

Not classified as Dangerous Goods by the criteria of the "Australian Code for the Transport of Dangerous Goods by Road & Rail" and the "New Zealand NZS5433: Transport of Dangerous Goods on Land".

**MARINE TRANSPORT**

Not classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea.

**AIR TRANSPORT**

Not classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air.

**15. REGULATORY INFORMATION**

**Poisons Schedule (Aust):** Not applicable

All the constituents of this material are listed on the Australian Inventory of Chemical Substances (AICS).

**16. OTHER INFORMATION**

Issue	Date	Reason(s) For Issue:
1.0	01/09/15	First Issue. Supersedes MSDS-ME01
1.1	22/10/15	Emergency contact details updated
1.2	24/01/20	Emergency contact details & item numbers updated. No other technical changes.

Safety Data Sheets are updated frequently. Please ensure that you have a current copy.

This SDS summarises at the date of issue our best knowledge of the health and safety hazard information of the product, and in particular how to safely handle and use the product in the workplace. Since Prysmian Australia Pty Ltd cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, review this SDS in the context of how the user intends to handle and use the product in the workplace.

If clarification or further information is needed to ensure that an appropriate assessment can be made, the user should contact this company.

Our responsibility for product as sold is subject to our standard terms and conditions, a copy of which is sent to our customers and is also available upon request.

**Product name:** Telstra PVC Insulated Jumper Wire

**Substance Key:** SDS-ME01

**Issued:** 24/01/20

**Version:** 1.2

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**NON-Hazardous Substance, NON-Dangerous Goods****1. MATERIAL AND SUPPLY COMPANY IDENTIFICATION****Product name:** Telstra Internal Copper Cables

<b>Synonyms:</b>	<b>Item Number(s)</b>
Telstra Internal Distribution Cables, CAT5E (UTP) & CAT6 (UTP)	323 series, 572 series

**Recommended use:** Cable is for the transmission of voice and data in a range of frequencies.

<b>Supplier:</b>	Prysmian Australia Pty Ltd
<b>ACN:</b>	096 594 080
<b>Street Address:</b>	1 Heathcote Road Liverpool NSW 2170 Australia
<b>Telephone:</b>	+612 9600-0777

**Emergency telephone number:** Quality & HSE Director: 0412 054 611**2. HAZARDS IDENTIFICATION****AUSTRALIA CLASSIFICATION**

Based on available information, this material is not classified as hazardous according to criteria of Safe Work Australia.

**Poisons Schedule (Aust):** Not applicable**NEW ZEALAND CLASSIFICATION**

Based on available information, this material is not classified as hazardous according to criteria of ERMA New Zealand.

**DANGEROUS GOODS CLASSIFICATION**

Not classified as Dangerous Goods by the criteria of the "Australian Code for the Transport of Dangerous Goods by Road &amp; Rail" and the "New Zealand NZS5433: Transport of Dangerous Goods on Land".

**3. COMPOSITION INFORMATION**

CHEMICAL ENTITY	CAS NO.	PROPORTION
Copper	7440-50-8	30-60%
Cable may contain any or all of the following compounds	-	40-70%
Polyethylene insulation	-	-
Polyethylene terephthalate (PET) yarns/tapes	-	-
Polyvinyl chloride (PVC) sheath	-	-
Low smoke zero halogen (LSOH) sheath	-	-
Ingredients determined to be non-hazardous	-	Balance
		100%

**Product name:** Telstra Internal Distribution Cable **Substance Key:** SDS-ME02**Issued:** 24/01/20 **Version:** 1.2 **Page:** 1 of 5**4. FIRST AID MEASURES**

If poisoning occurs, contact a doctor or Poisons Information Centre (Phone Australia 131 126, New Zealand 0800 764 766).

**Inhalation:** Not an expected route of exposure. However, if dust exposure occurs during cutting, remove victim from exposure. Remove contaminated clothing and loosen remaining clothing. Allow patient to assume most comfortable position and keep warm. Keep at rest until fully recovered. Seek medical advice if effects persist.**Skin contact:** If puncture wounds, cuts or irritation occurs, flush skin with running water. Seek medical assistance if bleeding from puncture wounds or cuts cannot be stemmed. Seek medical assistance if irritation occurs.**Eye contact:** If in eyes wash out immediately with water. In all cases of eye contamination it is a sensible precaution to seek medical advice.**Ingestion:**

Not an expected route of exposure. However, if material is ingested, rinse mouth with water. If swallowed, do NOT induce vomiting. Give a glass of water to drink. Never give anything by the mouth to an unconscious patient. If vomiting occurs give further water. Seek medical advice.

**Notes to physician:** Treat symptomatically.**5. FIRE-FIGHTING MEASURES****Specific hazards:** PVC, PE, PET and LSOH components will burn if ignited.**Fire fighting further advice:** On burning may emit toxic fumes. Fire fighters to wear self-contained breathing apparatus and suitable protective clothing if risk of exposure to vapour or products of combustion.**Hazchem Code:** Not applicable.**Suitable extinguishing media:**

If material is involved in a fire use water fog (or if unavailable fine water spray), foam, dry agent (carbon dioxide, dry chemical powder). If material is in service use foam or dry agents (carbon dioxide, dry chemical powder).

**6. ACCIDENTAL RELEASE MEASURES**

Wear protective equipment to prevent skin and eye contamination. Avoid inhalation of dust if present. Collect for reuse or recycling.

**Dangerous Goods – Initial Emergency Response Guide No:** Not applicable.**7. HANDLING AND STORAGE****Handling:** All staff shall be suitably trained in the handling of metallic cables. Avoid eye contact. Avoid skin contact with cut ends of cable.**Storage:** Store in a cool, dry, well-ventilated place and out of direct sunlight. Store away from incompatible materials described in Section 10.**Product name:** Telstra Internal Distribution Cable **Substance Key:** SDS-ME02**Issued:** 24/01/20 **Version:** 1.2 **Page:** 2 of 5



**8. EXPOSURE CONTROLS / PERSONAL PROTECTION****National occupational exposure limits:**

No value assigned for this specific material by Safe Work Australia or Department of Labour New Zealand.

However for:	TWA ppm	mg/m3	STEL ppm	mg/m3	CARCINOGEN CATEGORY	NOTICES
Copper (dust & mist) (as Cu)	-	1	-	-	-	-

As published by the Safe Work Australia or Department of Labour New Zealand.

TWA - The time-weighted average airborne concentration over an eight-hour working day, for a five-day working week over an entire working life.

STEL (Short Term Exposure Limit) - the average airborne concentration over a 15 minute period which should not be exceeded at any time during a normal eight-hour workday.

These Exposure Standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept too as low a level as is workable. These exposure standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity.

If the directions for use on the product label are followed, exposure of individuals using the product should not exceed the above standard. The standard was created for workers who are routinely, potentially exposed during product manufacture.

**Biological Limit Values:** As per the "National Model Regulations for the Control of Workplace Hazardous Substances (Safe Work Australia)" the ingredients in this material do not have a Biological Limit Allocated.

**Engineering measures:** Natural ventilation should be adequate under normal use conditions. Keep containers closed when not in use.

**Personal protection equipment:** OVERALLS, SAFETY SHOES, SAFETY GLASSES, GLOVES.

Wear overalls, safety glasses and impervious gloves. Available information suggests that gloves made from leather should be suitable for intermittent contact. However, due to variations in glove construction and local conditions, the user should make a final assessment. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storing or re-using. If risk of inhalation of exists (copper dust & mist), wear organic vapour/particulate respirator meeting the requirements of AS/NZS 1715 and AS/NZS 1716.

**Form / Colour / Odour:** Circular cables in a range of outside diameters.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

<b>Solubility:</b>	Insoluble in water
<b>Specific Gravity (20 °C):</b>	N Av
<b>Relative Vapour Density (air=1):</b>	N App
<b>Vapour Pressure (20 °C):</b>	N App
<b>Flash Point (°C):</b>	N App
<b>Flammability Limits (%):</b>	N App
<b>Autoignition Temperature (°C):</b>	N Av

Product name: Telstra Internal Distribution Cable

Substance Key: SDS-ME02

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<b>Melting Point/Range (°C):</b>	N Av
<b>Boiling Point/Range (°C):</b>	N App
<b>Decomposition Point/Range (°C):</b>	>200
<b>pH:</b>	N App
<b>Viscosity:</b>	N App
<b>Evaporation Rate (n-Butyl acetate=1):</b>	N App
<b>Total VOC (g/Litre):</b>	N Av

(Typical values only - consult specification sheet)  
N Av = Not available N App = Not applicable

**10. STABILITY AND REACTIVITY**

**Chemical stability:** This material is thermally stable when stored and used as directed.

**Conditions to avoid:** Elevated temperatures and sources of ignition.

**Incompatible Materials:** Oxidising agents.

**Hazardous decomposition products:** Oxides of carbon and nitrogen, smoke and other toxic fumes.

**Hazardous reactions:** No known hazardous reactions.

**11. TOXICOLOGICAL INFORMATION**

No adverse health effects expected if the product is handled in accordance with this SDS and the product label. Symptoms or effects that may arise if the product is mishandled and overexposure occurs are:

**Acute Effects**

**Inhalation:** Not expected to be a route of exposure. However, exposure to fine material due to mechanical cutting or abrading may be irritant to mucous membranes and respiratory tract.

**Skin contact:** Cut ends of copper wire and cable may cause abrasive irritation, cuts or puncture wounds. Contact with skin may result in irritation.

**Eye contact:** May be an eye irritant. Exposure to the dust may cause discomfort due to particulate nature. May cause physical irritation to the eyes.

**Ingestion:** Not expected to be a route of exposure. Swallowing can result in nausea, vomiting and irritation of the gastrointestinal tract.

**Long Term Effects:** No information available for product.

**Acute toxicity / Chronic toxicity:** No LD50 data available for the product.

**12. ECOLOGICAL INFORMATION**

Avoid contaminating waterways.

**Eco-toxicity:** No information available.

Product name: Telstra Internal Distribution Cable

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**Persistence and degradability:** No information available.

**Mobility:** No information available.

### 13. DISPOSAL CONSIDERATIONS

Refer to State/Territory Land Waste Management Authority.

### 14. TRANSPORT INFORMATION

#### ROAD AND RAIL TRANSPORT

Not classified as Dangerous Goods by the criteria of the "Australian Code for the Transport of Dangerous Goods by Road & Rail" and the "New Zealand NZS5433: Transport of Dangerous Goods on Land".

#### MARINE TRANSPORT

Not classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea.

#### AIR TRANSPORT

Not classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air.

### 15. REGULATORY INFORMATION

**Poisons Schedule (Aust):** Not applicable

All the constituents of this material are listed on the Australian Inventory of Chemical Substances (AICS).

### 16. OTHER INFORMATION

Issue	Date	Reason(s) For Issue:
1.0	01/09/15	First Issue. Supersedes MSDS-ME02.
1.1	22/10/15	Emergency contact details updated
1.2	24/01/20	Emergency contact details & item numbers updated. No other technical changes.

Safety Data Sheets are updated frequently. Please ensure that you have a current copy.

This SDS summarises at the date of issue our best knowledge of the health and safety hazard information of the product, and in particular how to safely handle and use the product in the workplace. Since Prysmian Australia Pty Ltd cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, review this SDS in the context of how the user intends to handle and use the product in the workplace.

If clarification or further information is needed to ensure that an appropriate assessment can be made, the user should contact this company.

Our responsibility for product as sold is subject to our standard terms and conditions, a copy of which is sent to our customers and is also available upon request.

**Product name:** Telstra Internal Distribution Cable

**Substance Key:** SDS-ME02

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## NON-Hazardous Substance, NON-Dangerous Goods

### 1. MATERIAL AND SUPPLY COMPANY IDENTIFICATION

**Product name:** Telstra External Copper Cables

Synonyms:	Item Number(s)
Telstra External Cables including CPFUT, CPEIUT, CPIUT, PEIUT-IB (aerial), air-tube cables and PEIFLI, CPFLI & PEILI (Lead-in)	465 series, 467 series, 477 series, 490 series

**Recommended use:** Cable is for the transmission of voice and data in a range of frequencies.

<b>Supplier:</b>	Prysmian Australia Pty Ltd
<b>ACN:</b>	096 594 080
<b>Street Address:</b>	1 Heathcote Road Liverpool NSW 2170 Australia
<b>Telephone:</b>	+612 9600-0777

**Emergency telephone number:** Quality & HSE Director: 0412 054 611

### 2. HAZARDS IDENTIFICATION

#### AUSTRALIA CLASSIFICATION

Based on available information, this material is not classified as hazardous according to criteria of Safe Work Australia.

**Poisons Schedule (Aust):** Not applicable

#### NEW ZEALAND CLASSIFICATION

Based on available information, this material is not classified as hazardous according to criteria of ERMA New Zealand.

#### DANGEROUS GOODS CLASSIFICATION

Not classified as Dangerous Goods by the criteria of the "Australian Code for the Transport of Dangerous Goods by Road & Rail" and the "New Zealand NZS5433: Transport of Dangerous Goods on Land".

### 3. COMPOSITION INFORMATION

CHEMICAL ENTITY	CAS NO.	PROPORTION
Copper	7440-50-8	20-80%
Cable may contain any or all of the following compounds	-	20-80%
Polyethylene insulation	-	
Polyvinyl chloride (PVC) insulation	-	
Filling compound	-	
Polyethylene terephthalate (PET) yarns/tapes	-	
Paper tapes	-	

**Product name:** Telstra External Copper Distribution Cables

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Aluminium moisture barrier tape	-	
Bonding agent	-	
Polyethylene sheath	-	
Polyamide sheath (Nylon)	-	
Polyvinyl chloride sheath	-	
Steel wire	-	
Ingredients determined to be non-hazardous	-	
		Balance
		100%

**4. FIRST AID MEASURES**

If poisoning occurs, contact a doctor or Poisons Information Centre (Phone Australia 131 126, New Zealand 0800 764 766).

**Inhalation:** Not an expected route of exposure. However, if dust exposure occurs during cutting, remove victim from exposure. Remove contaminated clothing and loosen remaining clothing. Allow patient to assume most comfortable position and keep warm. Keep at rest until fully recovered. Seek medical advice if effects persist.

**Skin contact:** If puncture wounds, cuts or irritation occurs, flush skin with running water. Seek medical assistance if bleeding from puncture wounds or cuts cannot be stemmed. Seek medical assistance if irritation occurs.

**Eye contact:** If in eyes wash out immediately with water. In all cases of eye contamination it is a sensible precaution to seek medical advice.

**Ingestion:**

Not an expected route of exposure. However, if material is ingested, rinse mouth with water. If swallowed, do NOT induce vomiting. Give a glass of water to drink. Never give anything by the mouth to an unconscious patient. If vomiting occurs give further water. Seek medical advice.

**Notes to physician:** Treat symptomatically.

**5. FIRE-FIGHTING MEASURES**

**Specific hazards:** PVC, PE, Filling compound, PET, Tapes, Bonding agents and Nylon components will burn if ignited.

**Fire fighting further advice:** On burning may emit toxic fumes. Fire fighters to wear self-contained breathing apparatus and suitable protective clothing if risk of exposure to vapour or products of combustion.

**Hazchem Code:** Not applicable.

**Suitable extinguishing media:** If material is involved in a fire use water fog (or if unavailable fine water spray), foam, dry agent (carbon dioxide, dry chemical powder). If material is in service use foam or dry agents (carbon dioxide, dry chemical powder).

**6. ACCIDENTAL RELEASE MEASURES**

Wear protective equipment to prevent skin and eye contamination. Avoid inhalation of dust if present. Collect for reuse or recycling.

**Dangerous Goods – Initial Emergency Response Guide No:** Not applicable.

**Product name:** Telstra External Copper Distribution Cables      **Substance Key:** SDS-ME03

**Issued:** 24/01/20

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**7. HANDLING AND STORAGE**

**Handling:** All staff shall be suitably trained in the handling of metallic cables. Avoid eye contact. Avoid skin contact with cut ends of cable.

**Storage:** Store in a cool, dry, well-ventilated place and out of direct sunlight. Store away from incompatible materials described in Section 10.

**8. EXPOSURE CONTROLS / PERSONAL PROTECTION****National occupational exposure limits:**

No value assigned for this specific material by Safe Work Australia or Department of Labour New Zealand.

	TWA		STEL		CARCINOGEN CATEGORY	NOTICES
	ppm	mg/m3	ppm	mg/m3		
Copper (dust & mist) (as Cu)	-	1	-	-	-	-

As published by the Safe Work Australia or Department of Labour New Zealand.

**TWA** - The time-weighted average airborne concentration over an eight-hour working day, for a five-day working week over an entire working life.

**STEL** (Short Term Exposure Limit) - the average airborne concentration over a 15 minute period which should not be exceeded at any time during a normal eight-hour workday.

These Exposure Standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept too as low a level as is workable. These exposure standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity.

If the directions for use on the product label are followed, exposure of individuals using the product should not exceed the above standard. The standard was created for workers who are routinely, potentially exposed during product manufacture.

**Biological Limit Values:** As per the "National Model Regulations for the Control of Workplace Hazardous Substances (Safe Work Australia)" the ingredients in this material do not have a Biological Limit Allocated.

**Engineering measures:** Natural ventilation should be adequate under normal use conditions. Keep containers closed when not in use.

**Personal protection equipment:** OVERALLS, SAFETY SHOES, SAFETY GLASSES, GLOVES.

Wear overalls, safety glasses and impervious gloves. Available information suggests that gloves made from leather should be suitable for intermittent contact. However, due to variations in glove construction and local conditions, the user should make a final assessment. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storing or re-using. If risk of inhalation of exists (copper dust & mist), wear organic vapour/particulate respirator meeting the requirements of AS/NZS 1715 and AS/NZS 1716.

**Product name:** Telstra External Copper Distribution Cables      **Substance Key:** SDS-ME03

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Form / Colour / Odour:** Circular and figure 8 cables in a range of outside diameters.

<b>Solubility:</b>	Insoluble in water
<b>Specific Gravity (20 °C):</b>	N Av
<b>Relative Vapour Density (air=1):</b>	N App
<b>Vapour Pressure (20 °C):</b>	N App
<b>Flash Point (°C):</b>	N App
<b>Flammability Limits (%):</b>	N App
<b>Autoignition Temperature (°C):</b>	N Av
<b>Melting Point/Range (°C):</b>	N Av
<b>Boiling Point/Range (°C):</b>	N App
<b>Decomposition Point/Range (°C):</b>	>200
<b>pH:</b>	N App
<b>Viscosity:</b>	N App
<b>Evaporation Rate (n-Butyl acetate=1):</b>	N App
<b>Total VOC (g/Litre):</b>	N Av

(Typical values only - consult specification sheet)  
N Av = Not available, N App = Not applicable

## 10. STABILITY AND REACTIVITY

**Chemical stability:** This material is thermally stable when stored and used as directed.

**Conditions to avoid:** Elevated temperatures and sources of ignition.

**Incompatible Materials:** Oxidising agents.

**Hazardous decomposition products:** Oxides of carbon and nitrogen, smoke and other toxic fumes.

**Hazardous reactions:** No known hazardous reactions.

## 11. TOXICOLOGICAL INFORMATION

No adverse health effects expected if the product is handled in accordance with this SDS and the product label. Symptoms or effects that may arise if product is mishandled & overexposure occurs are:

### Acute Effects

**Inhalation:** Not expected to be a route of exposure. However, exposure to fine material due to mechanical cutting or abrading may be irritant to mucous membranes and respiratory tract.

**Skin contact:** Cut ends of copper wire and cable may cause abrasive irritation, cuts or puncture wounds. Contact with skin may result in irritation.

**Eye contact:** May be an eye irritant. Exposure to the dust may cause discomfort due to particulate nature. May cause physical irritation to the eyes.

**Ingestion:** Not expected to be a route of exposure. Swallowing can result in nausea, vomiting and irritation of the gastrointestinal tract.

**Long Term Effects:** No information available for product.

**Acute toxicity / Chronic toxicity:** No LD50 data available for the product.

**Product name:** Telstra External Copper Distribution Cables      **Substance Key:** SDS-ME03

**Issued:** 24/01/20

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## 12. ECOLOGICAL INFORMATION

Avoid contaminating waterways.

**Eco-toxicity:** No information available.

**Persistence and degradability:** No information available.

**Mobility:** No information available.

## 13. DISPOSAL CONSIDERATIONS

Refer to State/Territory Land Waste Management Authority.

## 14. TRANSPORT INFORMATION

### ROAD AND RAIL TRANSPORT

Not classified as Dangerous Goods by the criteria of the "Australian Code for the Transport of Dangerous Goods by Road & Rail" and the "New Zealand NZS5433: Transport of Dangerous Goods on Land".

### MARINE TRANSPORT

Not classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea.

### AIR TRANSPORT

Not classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air.

## 15. REGULATORY INFORMATION

**Poisons Schedule (Aust):** Not applicable

All the constituents of this material are listed on the Australian Inventory of Chemical Substances (AICS).

## 16. OTHER INFORMATION

Issue	Date	Reason(s) For Issue:
1.0	01/09/15	First Issue. Supersedes MSDS-ME03 and includes semi dry filling compound.
1.1	22/10/15	Emergency contact details updated
1.2	01/05/16	Synonym clause updated (IB cable ref. added) to align with existing serial numbers.
1.3	24/01/20	Emergency contact details & item numbers updated. No other technical changes.

Safety Data Sheets are updated frequently. Please ensure that you have a current copy. This SDS summarises at the date of issue our best knowledge of the health and safety hazard information of the product, and in particular how to safely handle and use the product in the workplace. Since Prysmian Australia Pty Ltd cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, review this SDS in the context of how the user intends to handle and use the product in the workplace.

If clarification or further information is needed to ensure that an appropriate assessment can be made, the user should contact this company.

Our responsibility for product as sold is subject to our standard terms and conditions, a copy of which is sent to our customers and is also available upon request.

**Product name:** Telstra External Copper Distribution Cables      **Substance Key:** SDS-ME03

**Issued:** 24/01/20

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## NON-Hazardous Substance, NON-Dangerous Goods

## 1. MATERIAL AND SUPPLY COMPANY IDENTIFICATION

Product name: **Telstra Station Cable**

## Synonyms:

Telstra Station Cable

## Item Number(s)

353 series

**Recommended use:** Cable is for the transmission of voice and data in a range of frequencies.**Supplier:** Prysmian Australia Pty Ltd**ACN:** 096 594 080**Street Address:** 1 Heathcote Road  
Liverpool NSW 2170  
Australia**Telephone:** +612 9600-0777**Emergency telephone number:** Quality & HSE Director: 0412 054 611

## 2. HAZARDS IDENTIFICATION

## AUSTRALIA CLASSIFICATION

Based on available information, this material is not classified as hazardous according to criteria of Safe Work Australia.

**Poisons Schedule (Aust):** Not applicable

## NEW ZEALAND CLASSIFICATION

Based on available information, this material is not classified as hazardous according to criteria of ERMA New Zealand.

## DANGEROUS GOODS CLASSIFICATION

Not classified as Dangerous Goods by the criteria of the "Australian Code for the Transport of Dangerous Goods by Road &amp; Rail" and the "New Zealand NZS5433: Transport of Dangerous Goods on Land".

## 3. COMPOSITION INFORMATION

CHEMICAL ENTITY	CAS NO.	PROPORTION
Copper	7440-50-8	30-60%
Cable may contain any or all of the following compounds	-	40-70%
Polyethylene insulation	-	
Polyamide (nylon) insulation	-	
Filling compound	-	
Polyethylene terephthalate (PET) yarns/tapes	-	
Metallic screen (aluminium & polyethylene combination)	-	
Low smoke zero halogen (LSOH) sheath	-	
Ingredients determined to be non-hazardous		Balance
		100%

Product name: Telstra Station Cable

Substance Key: SDS-ME010

Issued: 24/01/20

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## 4. FIRST AID MEASURES

If poisoning occurs, contact a doctor or Poisons Information Centre (Phone Australia 131 126, New Zealand 0800 764 766).

**Inhalation:** Not an expected route of exposure. However, if dust exposure occurs during cutting, remove victim from exposure. Remove contaminated clothing and loosen remaining clothing. Allow patient to assume most comfortable position and keep warm. Keep at rest until fully recovered. Seek medical advice if effects persist.**Skin contact:** If puncture wounds, cuts or irritation occurs, flush skin with running water. Seek medical assistance if bleeding from puncture wounds or cuts cannot be stemmed. Seek medical assistance if irritation occurs.**Eye contact:** If in eyes wash out immediately with water. In all cases of eye contamination it is a sensible precaution to seek medical advice.**Ingestion:** Not an expected route of exposure. However, if material is ingested, rinse mouth with water. If swallowed, do NOT induce vomiting. Give a glass of water to drink. Never give anything by the mouth to an unconscious patient. If vomiting occurs give further water. Seek medical advice.**Notes to physician:** Treat symptomatically.

## 5. FIRE-FIGHTING MEASURES

**Specific hazards:** PVC, Nylon, PET, PE, Metallic screen and LSOH components will burn if ignited.**Fire fighting further advice:** On burning may emit toxic fumes. Fire fighters to wear self-contained breathing apparatus and suitable protective clothing if risk of exposure to vapour or products of combustion.**Hazchem Code:** Not applicable.**Suitable extinguishing media:** If material is involved in a fire use water fog (or if unavailable fine water spray), foam, dry agent (carbon dioxide, dry chemical powder). If material is in service use foam or dry agents (carbon dioxide, dry chemical powder).

## 6. ACCIDENTAL RELEASE MEASURES

Wear protective equipment to prevent skin and eye contamination. Avoid inhalation of dust if present. Collect for reuse or recycling.

**Dangerous Goods – Initial Emergency Response Guide No:** Not applicable.

## 7. HANDLING AND STORAGE

**Handling:** All staff shall be suitably trained in the handling of metallic cables. Avoid eye contact. Avoid skin with cut ends of copper wire.**Storage:** Store in a cool, dry, well-ventilated place and out of direct sunlight. Store away from incompatible materials described in Section 10.

Product name: Telstra Station Cable

Substance Key: SDS-ME010

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**8. EXPOSURE CONTROLS / PERSONAL PROTECTION****National occupational exposure limits:**

No value assigned for this specific material by Safe Work Australia or Department of Labour New Zealand.

	TWA		STEL		CARCINOGEN CATEGORY	NOTICES
	ppm	mg/m3	ppm	mg/m3		
Copper (dust & mist) (as Cu)	-	1	-	-	-	-
Aluminium (metal dust) (elemental)	-	1	-	-	-	-

As published by the Safe Work Australia or Department of Labour New Zealand.

**TWA** - The time-weighted average airborne concentration over an eight-hour working day, for a five-day working week over an entire working life.

**STEL** (Short Term Exposure Limit) - the average airborne concentration over a 15 minute period which should not be exceeded at any time during a normal eight-hour workday.

These Exposure Standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept too as low a level as is workable. These exposure standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity.

If the directions for use on the product label are followed, exposure of individuals using the product should not exceed the above standard. The standard was created for workers who are routinely, potentially exposed during product manufacture.

**Biological Limit Values:** As per the "National Model Regulations for the Control of Workplace Hazardous Substances (Safe Work Australia)" the ingredients in this material do not have a Biological Limit Allocated.

**Engineering measures:** Natural ventilation should be adequate under normal use conditions. Keep containers closed when not in use.

**Personal protection equipment:** OVERALLS, SAFETY SHOES, SAFETY GLASSES, GLOVES.

Wear overalls, safety glasses and impervious gloves. Available information suggests that gloves made from leather should be suitable for intermittent contact. However, due to variations in glove construction and local conditions, the user should make a final assessment. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storing or re-using. If risk of inhalation of exists (copper dust & mist), wear organic vapour/particulate respirator meeting the requirements of AS/NZS 1715 and AS/NZS 1716.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

**Form / Colour / Odour:** Circular cables in a range of outside diameters.

<b>Solubility:</b>	Insoluble in water
<b>Specific Gravity (20 °C):</b>	N Av
<b>Relative Vapour Density (air=1):</b>	N App
<b>Vapour Pressure (20 °C):</b>	N App
<b>Flash Point (°C):</b>	N App

**Product name:** Telstra Station Cable

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<b>Flammability Limits (%):</b>	N App
<b>Autoignition Temperature (°C):</b>	N Av
<b>Melting Point/Range (°C):</b>	N Av
<b>Boiling Point/Range (°C):</b>	N App
<b>Decomposition Point/Range (°C):</b>	>200
<b>pH:</b>	N App
<b>Viscosity:</b>	N App
<b>Evaporation Rate (n-Butyl acetate=1):</b>	N App
<b>Total VOC (g/Litre):</b>	N Av

(Typical values only - consult specification sheet)  
N Av = Not available N App = Not applicable

**10. STABILITY AND REACTIVITY**

**Chemical stability:** This material is thermally stable when stored and used as directed.

**Conditions to avoid:** Elevated temperatures and sources of ignition.

**Incompatible Materials:** Oxidising agents.

**Hazardous decomposition products:** Oxides of carbon and nitrogen, smoke and other toxic fumes.

**Hazardous reactions:** No known hazardous reactions.

**11. TOXICOLOGICAL INFORMATION**

No adverse health effects expected if the product is handled in accordance with this SDS and the product label. Symptoms or effects that may arise if the product is mishandled and overexposure occurs are:

**Acute Effects**

**Inhalation:** Not expected to be a route of exposure. However, exposure to fine material due to mechanical cutting or abrading may be irritant to mucous membranes and respiratory tract.

**Skin contact:** Cut ends of copper wire and cable may cause abrasive irritation, cuts or puncture wounds. Contact with skin may result in irritation.

**Eye contact:** May be an eye irritant. Exposure to the dust may cause discomfort due to particulate nature. May cause physical irritation to the eyes.

**Ingestion:** Not expected to be a route of exposure. Swallowing can result in nausea, vomiting and irritation of the gastrointestinal tract.

**Long Term Effects:** No information available for product.

**Acute toxicity / Chronic toxicity:** No LD50 data available for the product.

**12. ECOLOGICAL INFORMATION**

Avoid contaminating waterways.

**Eco-toxicity:** No information available.

**Persistence and degradability:** No information available.

**Mobility:** No information available.

**Product name:** Telstra Station Cable

**Substance Key:** SDS-ME010

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**13. DISPOSAL CONSIDERATIONS**

Refer to State/Territory Land Waste Management Authority.

**14. TRANSPORT INFORMATION****ROAD AND RAIL TRANSPORT**

Not classified as Dangerous Goods by the criteria of the "Australian Code for the Transport of Dangerous Goods by Road & Rail" and the "New Zealand NZS5433: Transport of Dangerous Goods on Land".

**MARINE TRANSPORT**

Not classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea.

**AIR TRANSPORT**

Not classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air.

**15. REGULATORY INFORMATION**

**Poisons Schedule (Aust):** Not applicable

All the constituents of this material are listed on the Australian Inventory of Chemical Substances (AICS).

**16. OTHER INFORMATION**

Issue	Date	Reason(s) For Issue:
1.0	01/09/15	First Issue. Supersedes MSDS-ME10.
1.1	22/10/15	Emergency contact details updated
1.2	24/01/20	Emergency contact details & item numbers updated. No other technical changes.

Safety Data Sheets are updated frequently. Please ensure that you have a current copy.

This SDS summarises at the date of issue our best knowledge of the health and safety hazard information of the product, and in particular how to safely handle and use the product in the workplace. Since Prysmian Australia Pty Ltd cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, review this SDS in the context of how the user intends to handle and use the product in the workplace.

If clarification or further information is needed to ensure that an appropriate assessment can be made, the user should contact this company.

Our responsibility for product as sold is subject to our standard terms and conditions, a copy of which is sent to our customers and is also available upon request.

**Product name:** Telstra Station Cable

**Substance Key:** SDS-ME010

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**NON-Hazardous Substance, NON-Dangerous Goods****1. MATERIAL AND SUPPLY COMPANY IDENTIFICATION**

**Product name:** **Telstra Underwater Copper Cable**

<b>Synonyms:</b>	<b>Item Number(s)</b>
Underwater cable, river crossing cable	Not Allocated

**Recommended use:** Cable is for the transmission of voice and transfer in a range of frequencies.

**Supplier:** Prysmian Australia Pty Ltd

**ACN:** 096 594 080

**Street Address:** 1 Heathcote Road  
Liverpool NSW 2170  
Australia

**Telephone:** +612 9600-0777

**Emergency telephone number:** **Quality & HSE Director: 0412 054 611**

**2. HAZARDS IDENTIFICATION****AUSTRALIA CLASSIFICATION**

Based on available information, this material is not classified as hazardous according to criteria of Safe Work Australia.

**Poisons Schedule (Aust):** Not applicable

**NEW ZEALAND CLASSIFICATION**

Based on available information, this material is not classified as hazardous according to criteria of ERMA New Zealand.

**DANGEROUS GOODS CLASSIFICATION**

Not classified as Dangerous Goods by the criteria of the "Australian Code for the Transport of Dangerous Goods by Road & Rail" and the "New Zealand NZS5433: Transport of Dangerous Goods on Land".

**3. COMPOSITION INFORMATION**

CHEMICAL ENTITY	CAS NO.	PROPORTION
Copper	7440-50-8	20-80%
Cable may contain any or all of the following compounds	-	20-80%
Polyethylene insulation	-	
Flooding compound	-	
Polyethylene terephthalate (PET) yarns/tapes	-	
Paper tapes	-	
Aluminium moisture barrier tape	-	
Water-swellaable filling / armour flooding compound	-	
Polyethylene sheath	-	
Steel wire	-	
		Balance
		100%

**Product name:** Telstra Underwater Copper Cable

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Bitumen	8052-42-4	
Bituminised hessian tape	-	
Ingredients determined to be non-hazardous	-	Balance

100%

**4. FIRST AID MEASURES**

If poisoning occurs, contact a doctor or Poisons Information Centre (Phone Australia 131 126, New Zealand 0800 764 766).

**Inhalation:** Not an expected route of exposure. However, if dust exposure occurs during cutting, remove victim from exposure. Remove contaminated clothing and loosen remaining clothing. Allow patient to assume most comfortable position and keep warm. Keep at rest until fully recovered. Seek medical advice if effects persist.

**Skin contact:** If puncture wounds, cuts or irritation occurs, flush skin with running water. Seek medical assistance if bleeding from puncture wounds or cuts cannot be stemmed. Seek medical assistance if irritation occurs.

**Eye contact:** If in eyes wash out immediately with water. In all cases of eye contamination it is a sensible precaution to seek medical advice.

**Ingestion:** Not an expected route of exposure. However, if material is ingested, rinse mouth with water. If swallowed, do NOT induce vomiting. Give a glass of water to drink. Never give anything by the mouth to an conscious patient. If vomiting occurs give further water. Seek medical advice.

**Notes to physician:** Treat symptomatically.

**5. FIRE-FIGHTING MEASURES**

**Specific hazards:** Flooding compound, PET, Tapes, Water-swellable filling / amour flooding compound, Bitumen and Bituminised hessian tape components will burn if ignited.

**Fire fighting further advice:** On burning may emit toxic fumes. Fire fighters to wear self-contained breathing apparatus and suitable protective clothing if risk of exposure to vapour or products of combustion.

**Hazchem Code:** Not applicable.

**Suitable extinguishing media:** If material is involved in a fire use water fog (or if unavailable fine water spray), foam, dry agent (carbon dioxide, dry chemical powder). If material is in service use foam or dry agents (carbon dioxide, dry chemical powder).

**6. ACCIDENTAL RELEASE MEASURES**

Wear protective equipment to prevent skin and eye contamination. Avoid inhalation of dust if present. Collect for reuse or recycling.

**Dangerous Goods – Initial Emergency Response Guide No:** Not applicable.

Product name: Telstra Underwater Copper Cable

Substance Key: SDS-ME011

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**7. HANDLING AND STORAGE**

**Handling:** All staff shall be suitably trained in the handling of metallic cables. Avoid eye contact. Avoid skin contact with cut ends of cable.

**Storage:** Store in a cool, dry, well-ventilated place and out of direct sunlight. Store away from incompatible materials described in Section 10.

**8. EXPOSURE CONTROLS / PERSONAL PROTECTION****National occupational exposure limits:**

No value assigned for this specific material by Safe Work Australia or Department of Labour New Zealand.

However for:	TWA ppm	mg/m3	STEL ppm	mg/m3	CARCINOGEN CATEGORY	NOTICES
Copper (dust & mist) (as Cu)	-	1	-	-	-	-
Bitumen	-	5	-	-	-	-

As published by the Safe Work Australia or Department of Labour New Zealand.

**TWA** - The time-weighted average airborne concentration over an eight-hour working day, for a five-day working week over an entire working life.

**STEL** (Short Term Exposure Limit) - the average airborne concentration over a 15 minute period which should not be exceeded at any time during a normal eight-hour workday.

These Exposure Standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept too as low a level as is workable. These exposure standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity.

If the directions for use on the product label are followed, exposure of individuals using the product should not exceed the above standard. The standard was created for workers who are routinely, potentially exposed during product manufacture.

**Biological Limit Values:**

As per the "National Model Regulations for the Control of Workplace Hazardous Substances (Safe Work Australia)" the ingredients in this material do not have a Biological Limit Allocated.

**Engineering measures:**

Natural ventilation should be adequate under normal use conditions. Keep containers closed when not in use.

**Personal protection equipment:** OVERALLS, SAFETY SHOES, SAFETY GLASSES, GLOVES.

Wear overalls, safety glasses and impervious gloves. Available information suggests that gloves made from leather should be suitable for intermittent contact. However, due to variations in glove construction and local conditions, the user should make a final assessment. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storing or re-using. If risk of inhalation of exists (copper dust & mist or bitumen), wear organic vapour/particulate respirator meeting the requirements of AS/NZS 1715 and AS/NZS 1716.

Product name: Telstra Underwater Copper Cable

Substance Key: SDS-ME011

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**9. PHYSICAL AND CHEMICAL PROPERTIES**

**Form / Colour / Odour:** Circular cables in a range of outside diameters.

<b>Solubility:</b>	Insoluble in water
<b>Specific Gravity (20 °C):</b>	N Av
<b>Relative Vapour Density (air=1):</b>	N App
<b>Vapour Pressure (20 °C):</b>	N App
<b>Flash Point (°C):</b>	N App
<b>Flammability Limits (%):</b>	N App
<b>Autoignition Temperature (°C):</b>	N Av
<b>Melting Point/Range (°C):</b>	N Av
<b>Boiling Point/Range (°C):</b>	N App
<b>Decomposition Point/Range (°C):</b>	>200
<b>pH:</b>	N App
<b>Viscosity:</b>	N App
<b>Evaporation Rate (n-Butyl acetate=1):</b>	N App
<b>Total VOC (g/Litre):</b>	N Av

(Typical values only - consult specification sheet)  
N Av = Not available      N App = Not applicable

**10. STABILITY AND REACTIVITY**

**Chemical stability:** This material is thermally stable when stored and used as directed.

**Conditions to avoid:** Elevated temperatures and sources of ignition.

**Incompatible Materials:** Oxidising agents.

**Hazardous decomposition products:** Oxides of carbon and nitrogen, smoke and other toxic fumes.

**Hazardous reactions:** No known hazardous reactions.

**11. TOXICOLOGICAL INFORMATION**

No adverse health effects expected if the product is handled in accordance with this SDS and the product label. Symptoms or effects that may arise if the product is mishandled and overexposure occurs are:

**Acute Effects**

**Inhalation:** Not expected to be a route of exposure. However, exposure to fine material due to mechanical cutting or abrading may be irritant to mucous membranes and respiratory tract.

**Skin contact:** Cut ends of copper wire and cable may cause abrasive irritation, cuts or puncture wounds. Contact with skin may result in irritation.

**Eye contact:** May be an eye irritant. Exposure to the dust may cause discomfort due to particulate nature. May cause physical irritation to the eyes.

**Ingestion:** Not expected to be a route of exposure. Swallowing can result in nausea, vomiting and irritation of the gastrointestinal tract.

**Long Term Effects:** No information available for product.

**Acute toxicity / Chronic toxicity:** No LD50 data available for the product.

**Product name:** Telstra Underwater Copper Cable

**Substance Key:** SDS-ME011

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**12. ECOLOGICAL INFORMATION**

Avoid contaminating waterways.

**Eco-toxicity:** No information available.

**Persistence and degradability:** No information available.

**Mobility:** No information available.

**13. DISPOSAL CONSIDERATIONS**

Refer to State/Territory Land Waste Management Authority.

**14. TRANSPORT INFORMATION****ROAD AND RAIL TRANSPORT**

Not classified as Dangerous Goods by the criteria of the "Australian Code for the Transport of Dangerous Goods by Road & Rail" and the "New Zealand NZS5433: Transport of Dangerous Goods on Land".

**MARINE TRANSPORT**

Not classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea.

**AIR TRANSPORT**

Not classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air.

**15. REGULATORY INFORMATION**

**Poisons Schedule (Aust):** Not applicable

All the constituents of this material are listed on the Australian Inventory of Chemical Substances (AICS).

**16. OTHER INFORMATION**

<u>Issue</u>	<u>Date</u>	<u>Reason(s) For Issue:</u>
1.0	01/09/15	First Issue. Supersedes MSDS-ME11.
1.1	22/10/15	Emergency contact details updated
1.2	24/01/20	Emergency contact details & item numbers updated. No other technical changes.

Safety Data Sheets are updated frequently. Please ensure that you have a current copy. This SDS summarises at the date of issue our best knowledge of the health and safety hazard information of the product, and in particular how to safely handle and use the product in the workplace. Since Prysmian Australia Pty Ltd cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, review this SDS in the context of how the user intends to handle and use the product in the workplace.

If clarification or further information is needed to ensure that an appropriate assessment can be made, the user should contact this company.

Our responsibility for product as sold is subject to our standard terms and conditions, a copy of which is sent to our customers and is also available upon request.

**Product name:** Telstra Underwater Copper Cable

**Substance Key:** SDS-ME011

**Issued:** 24/01/20

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**7. HANDLING AND STORAGE**

**Handling:** All staff shall be suitably trained in the handling of optical cables. Avoid eye contact. Avoid skin contact with cut ends of cable.

**Storage:** Store in a cool, dry, well-ventilated place and out of direct sunlight. Store away from incompatible materials described in Section 10.

**8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

**National occupational exposure limits:** No value assigned for this specific material by Safe Work Australia or Department of Labour New Zealand.

However for:	TWA		STEL		CARCINOGEN CATEGORY	NOTICES
	ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>		
Bitumen	-	5	-	-	-	-

As published by the Safe Work Australia or Department of Labour New Zealand.

TWA - The time-weighted average airborne concentration over an eight-hour working day, for a five-day working week over an entire working life.

STEL (Short Term Exposure Limit) - the average airborne concentration over a 15 minute period which should not be exceeded at any time during a normal eight-hour workday.

These Exposure Standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept too as low a level as is workable. These exposure standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity.

If the directions for use on the product label are followed, exposure of individuals using the product should not exceed the above standard. The standard was created for workers who are routinely, potentially exposed during product manufacture.

**Biological Limit Values:** As per the "National Model Regulations for the Control of Workplace Hazardous Substances (Safe Work Australia)" the ingredients in this material do not have a Biological Limit Allocated.

**Engineering measures:** Natural ventilation should be adequate under normal use conditions. Keep containers closed when not in use.

**Personal protection equipment:** OVERALLS, SAFETY SHOES, SAFETY GLASSES, GLOVES.

Wear overalls, safety glasses and impervious gloves. Available information suggests that gloves made from leather should be suitable for intermittent contact. However, due to variations in glove construction and local conditions, the user should make a final assessment. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storing or re-using. If risk of inhalation of exists (bitumen), wear organic vapour/particulate respirator meeting the requirements of AS/NZS 1715 and AS/NZS 1716.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

**Form / Colour / Odour:** Circular cables in a range of outside diameters.

**Product name:** Telstra Underwater Optical Fibre Cable

**Substance Key:** SDS-OF01

**Issued:** 24/01/20

**Version:** 1.3

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<b>Solubility:</b>	Insoluble in water
<b>Specific Gravity (20 °C):</b>	N Av
<b>Relative Vapour Density (air=1):</b>	N App
<b>Vapour Pressure (20 °C):</b>	N App
<b>Flash Point (°C):</b>	N App
<b>Flammability Limits (%):</b>	N App
<b>Autoignition Temperature (°C):</b>	N Av
<b>Melting Point/Range (°C):</b>	N Av
<b>Boiling Point/Range (°C):</b>	N App
<b>Decomposition Point/Range (°C):</b>	>200
<b>pH:</b>	N App
<b>Viscosity:</b>	N App
<b>Evaporation Rate (n-Butyl acetate=1):</b>	N App
<b>Total VOC (g/Litre):</b>	N Av

(Typical values only - consult specification sheet)  
N Av = Not available N App = Not applicable

**10. STABILITY AND REACTIVITY**

**Chemical stability:** This material is thermally stable when stored and used as directed.

**Conditions to avoid:** Elevated temperatures and sources of ignition.

**Incompatible Materials:** Oxidising agents.

**Hazardous decomposition products:** Oxides of carbon and nitrogen, smoke and other toxic fumes.

**Hazardous reactions:** No known hazardous reactions.

**11. TOXICOLOGICAL INFORMATION**

No adverse health effects expected if the product is handled in accordance with this SDS and the product label. Symptoms or effects that may arise if the product is mishandled and overexposure occurs are:

**Acute Effects**

**Inhalation:** Not expected to be a route of exposure. However, exposure to fine material due to mechanical cutting or abrading may be irritant to mucous membranes and respiratory tract.

**Skin contact:** Cut ends of fibre and cable may cause abrasive irritation, cuts or puncture wounds. Contact with skin may result in irritation.

**Eye contact:** May be an eye irritant. Exposure to the dust may cause discomfort due to particulate nature. May cause physical irritation to the eyes.

**Ingestion:** Not expected to be a route of exposure. Swallowing can result in nausea, vomiting and irritation of the gastrointestinal tract.

**Long Term Effects:** No information available for product.

**Acute toxicity / Chronic toxicity:** No LD50 data available for the product.

**Product name:** Telstra Underwater Optical Fibre Cable

**Substance Key:** SDS-OF01

**Issued:** 24/01/20

**Version:** 1.3

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**12. ECOLOGICAL INFORMATION**

Avoid contaminating waterways.

**Eco-toxicity:** No information available.

**Persistence and degradability:** No information available.

**Mobility:** No information available.

**13. DISPOSAL CONSIDERATIONS**

Refer to State/Territory Land Waste Management Authority.

**14. TRANSPORT INFORMATION****ROAD AND RAIL TRANSPORT**

Not classified as Dangerous Goods by the criteria of the "Australian Code for the Transport of Dangerous Goods by Road & Rail" and the "New Zealand NZS5433: Transport of Dangerous Goods on Land".

**MARINE TRANSPORT**

Not classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea.

**AIR TRANSPORT**

Not classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air.

**15. REGULATORY INFORMATION**

**Poisons Schedule (Aust):** Not applicable

All the constituents of this material are listed on the Australian Inventory of Chemical Substances (AICS).

**16. OTHER INFORMATION**

Issue	Date	Reason(s) For Issue:
1.0	01/09/15	First Issue. Supersedes MSDS-OF01
1.1	22/10/15	Emergency contact details updated
1.2	04/01/19	Emergency contact details updated. Flextube cables added
1.3	24/01/20	Emergency contact details & item numbers updated. No other technical changes.

Safety Data Sheets are updated frequently. Please ensure that you have a current copy.

This SDS summarises at the date of issue our best knowledge of the health and safety hazard information of the product, and in particular how to safely handle and use the product in the workplace. Since Prysmian Australia Pty Ltd cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, review this SDS in the context of how the user intends to handle and use the product in the workplace. If clarification or further information is needed to ensure that an appropriate assessment can be made, the user should contact this company. Our responsibility for product as sold is subject to our standard terms and conditions, a copy of which is sent to our customers and is also available upon request.

**Product name:** Telstra Underwater Optical Fibre Cable

**Substance Key:** SDS-OF01

**Issued:** 24/01/20

**Version:** 1.3

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**NON-Hazardous Substance, NON-Dangerous Goods****1. MATERIAL AND SUPPLY COMPANY IDENTIFICATION**

**Product name:** **Telstra External Optical Fibre Cables**

Synonyms:	Serial Number(s)
Duct Cables:	
SingleSM@RT	40009913
SM@RTLink	40010738-40
Flextube	40010869, 40007900
SM@RTCORE	48424 series
Direct Buried/High Strength:	
EXTR@CORE HSe	48436 series
Aerial Cable:	
SM@RTSPAN	48431 series
Rodent Proof:	
ARM@CORE	48453 series
Flextube	40010128

**Recommended use:** Cable is for the transmission of voice and data in a range of frequencies.

**Supplier:** Prysmian Australia Pty Ltd

**ACN:** 096 594 080

**Street Address:** 1 Heathcote Road

Liverpool NSW 2170

Australia

**Telephone:** +612 9600-0777

**Emergency telephone number:** **Quality & HSE Director: 0412 054 611**

**2. HAZARDS IDENTIFICATION****AUSTRALIA CLASSIFICATION**

Based on available information, this material is not classified as hazardous according to criteria of Safe Work Australia.

**Poisons Schedule (Aust):** Not applicable

**NEW ZEALAND CLASSIFICATION**

Based on available information, this material is not classified as hazardous according to criteria of ERMA New Zealand.

**DANGEROUS GOODS CLASSIFICATION**

Not classified as Dangerous Goods by the criteria of the "Australian Code for the Transport of Dangerous Goods by Road & Rail" and the "New Zealand NZS5433: Transport of Dangerous Goods on Land".

**Product name:** Telstra External Optical Fibre Cables

**Substance Key:** SDS-OF02

**Issued:** 24/01/20

**Version:** 1.4

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**3. COMPOSITION INFORMATION**

CHEMICAL ENTITY	CAS NO.	PROPORTION
Cable may contain any or all of the following compounds	-	100%
Optical fibres	-	
Tube filling compound	-	
Polybutylene terephthalate (PBT) tubes	-	
Glass reinforced plastic (GRP) rods or strips	-	
Interstitial flooding compound	-	
Polyethylene terephthalate (PET) yarns/ tapes	-	
Water-swellaable yarns/tapes	-	
Polyethylene (PE) sheath	-	
Aramid yarns	-	
Bonding agent	-	
Polyamine sheath (Nylon)	-	
Ingredients determined to be non-hazardous	-	Balance
		100%

**4. FIRST AID MEASURES**

If poisoning occurs, contact a doctor or Poisons Information Centre (Phone Australia 131 126, New Zealand 0800 764 766).

**Inhalation:** Not an expected route of exposure. However, if dust exposure occurs during cutting, remove victim from exposure. Remove contaminated clothing and loosen remaining clothing. Allow patient to assume most comfortable position and keep warm. Keep at rest until fully recovered. Seek medical advice if effects persist.

**Skin contact:** If puncture wounds, cuts or irritation occurs, flush skin with running water. Seek medical assistance if bleeding from puncture wounds or cuts cannot be stemmed. Seek medical assistance if irritation occurs.

**Eye contact:** If in eyes wash out immediately with water. In all cases of eye contamination it is a sensible precaution to seek medical advice.

**Ingestion:** Not an expected route of exposure. However, if material is ingested, rinse mouth with water. If swallowed, do NOT induce vomiting. Give a glass of water to drink. Never give anything by the mouth to an unconscious patient. If vomiting occurs give further water. Seek medical advice.

**Notes to physician:** Treat symptomatically.

**5. FIRE-FIGHTING MEASURES**

**Specific hazards:** Optical Fibre, Tube filling compound, PBT, Flooding compound, PET, Water-swellaable filling / amour flooding compound, PE, Aramid yarns, Bonding agent and Nylon will burn if ignited.

**Fire fighting further advice:** On burning may emit toxic fumes. Fire fighters to wear self-contained breathing apparatus and suitable protective clothing if risk of exposure to vapour or products of combustion.

**Hazchem Code:** Not applicable.

**Suitable extinguishing media:** If material is involved in a fire use water fog (or if unavailable fine water spray), foam, dry agent (carbon dioxide, dry chemical powder). If material is in service use foam or dry agents (carbon dioxide, dry chemical powder).

**Product name:** Telstra External Optical Fibre Cables **Substance Key:** SDS-OF02

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**6. ACCIDENTAL RELEASE MEASURES**

Wear protective equipment to prevent skin and eye contamination. Avoid inhalation of dust if present. Collect for reuse or recycling.

**Dangerous Goods – Initial Emergency Response Guide No:** Not applicable.

**7. HANDLING AND STORAGE**

**Handling:** All staff shall be suitably trained in the handling of optical cables. Avoid eye contact. Avoid skin contact with cut ends of cable.

**Storage:** Store in a cool, dry, well-ventilated place and out of direct sunlight. Store away from incompatible materials described in Section 10.

**8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

**National occupational exposure limits:** No value assigned for this specific material by Safe Work Australia or Department of Labour New Zealand.

**Biological Limit Values:** As per the “National Model Regulations for the Control of Workplace Hazardous Substances (Safe Work Australia)” the ingredients in this material do not have a Biological Limit Allocated.

**Engineering measures:** Natural ventilation should be adequate under normal use conditions. Keep containers closed when not in use.

**Personal protection equipment:** OVERALLS, SAFETY SHOES, SAFETY GLASSES, GLOVES.

Wear overalls, safety glasses and impervious gloves. Available information suggests that gloves made from leather should be suitable for intermittent contact. However, due to variations in glove construction and local conditions, the user should make a final assessment. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storing or re-using.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

**Form / Colour / Odour:** Circular cables in a range of outside diameters.

<b>Solubility:</b>	Insoluble in water
<b>Specific Gravity (20 °C):</b>	N Av
<b>Relative Vapour Density (air=1):</b>	N App
<b>Vapour Pressure (20 °C):</b>	N App
<b>Flash Point (°C):</b>	N App
<b>Flammability Limits (%):</b>	N App
<b>Autoignition Temperature (°C):</b>	N Av
<b>Melting Point/Range (°C):</b>	N Av
<b>Boiling Point/Range (°C):</b>	N App
<b>Decomposition Point/Range (°C):</b>	>200
<b>pH:</b>	N App
<b>Viscosity:</b>	N App
<b>Evaporation Rate (n-Butyl acetate=1):</b>	N App
<b>Total VOC (g/Litre):</b>	N Av

Typical values only - consult specification sheet  
N Av = Not available N App = Not applicable

**Product name:** Telstra External Optical Fibre Cables **Substance Key:** SDS-OF02

**Issued:** 24/01/20

**Version:** 1.4

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**10. STABILITY AND REACTIVITY**

**Chemical stability:** This material is thermally stable when stored and used as directed.

**Conditions to avoid:** Elevated temperatures and sources of ignition.

**Incompatible Materials:** Oxidising agents.

**Hazardous decomposition products:** Oxides of carbon and nitrogen, smoke and other toxic fumes.

**Hazardous reactions:** No known hazardous reactions.

**11. TOXICOLOGICAL INFORMATION**

No adverse health effects expected if the product is handled in accordance with this SDS and the product label. Symptoms or effects that may arise if the product is mishandled and overexposure occurs are:

**Acute Effects**

**Inhalation:** Not expected to be a route of exposure. However, exposure to fine material due to mechanical cutting or abrading may be irritant to mucous membranes and respiratory tract.

**Skin contact:** Cut ends of fibre and cable may cause abrasive irritation, cuts or puncture wounds. Contact with skin may result in irritation.

**Eye contact:** May be an eye irritant. Exposure to the dust may cause discomfort due to particulate nature. May cause physical irritation to the eyes.

**Ingestion:** Not expected to be a route of exposure. Swallowing can result in nausea, vomiting and irritation of the gastrointestinal tract.

**Long Term Effects:** No information available for product.

**Acute toxicity / Chronic toxicity:** No LD50 data available for the product.

**12. ECOLOGICAL INFORMATION**

Avoid contaminating waterways.

**Eco-toxicity:** No information available.

**Persistence and degradability:** No information available.

**Mobility:** No information available.

Product name: Telstra External Optical Fibre Cables

Substance Key: SDS-OF02

Issued: 24/01/20

Version: 1.4

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**13. DISPOSAL CONSIDERATIONS**

Refer to State/Territory Land Waste Management Authority.

**14. TRANSPORT INFORMATION****ROAD AND RAIL TRANSPORT**

Not classified as Dangerous Goods by the criteria of the "Australian Code for the Transport of Dangerous Goods by Road & Rail" and the "New Zealand NZS5433: Transport of Dangerous Goods on Land".

**MARINE TRANSPORT**

Not classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea.

**AIR TRANSPORT**

Not classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air.

**15. REGULATORY INFORMATION**

**Poisons Schedule (Aust):** Not applicable

All the constituents of this material are listed on the Australian Inventory of Chemical Substances (AICS).

**16. OTHER INFORMATION**

Issue	Date	Reason(s) For Issue:
1.0	01/09/15	First Issue. Supersedes MSDS-OF02
1.1	22/10/15	Emergency contact updated
1.2	04/01/19	Emergency contact updated. SingleSM@RT, MiniSM@RT & Flextube cables added.
1.3	25/06/19	SM@RTCORE 2019 replaces MiniSM@RT. No other change in content.
1.4	24/01/20	Emergency contact & item numbers updated. Sm@rtLink brand added. No other changes.

Safety Data Sheets are updated frequently. Please ensure that you have a current copy.

This SDS summarises at the date of issue our best knowledge of the health and safety hazard information of the product, and in particular how to safely handle and use the product in the workplace. Since Prysmian Australia Pty Ltd cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, review this SDS in the context of how the user intends to handle and use the product in the workplace.

If clarification or further information is needed to ensure that an appropriate assessment can be made, the user should contact this company.

Our responsibility for product as sold is subject to our standard terms and conditions, a copy of which is sent to our customers and is also available upon request.

Product name: Telstra External Optical Fibre Cables

Substance Key: SDS-OF02

Issued: 24/01/20

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**NON-Hazardous Substance, NON-Dangerous Goods****1. MATERIAL AND SUPPLY COMPANY IDENTIFICATION****Product name: Telstra Internal Optical Fibre Cables**

Synonyms:	Serial Number(s)
Internal Tie Cable (TIE)	48462 series
Internal Riser/Distribution Cable (Premises Cable)	48492 series
Internal Breakout Cable	48393 series
Patchcord & Zipcord Cables	4841000, 4842000, 48300 series
Bare Fibre	Not available

**Recommended use:** Cable is for the transmission of voice and data in a range of frequencies.

**Supplier:** Prysmian Australia Pty Ltd  
**ACN:** 096 594 080  
**Street Address:** 1 Heathcote Road  
 Liverpool NSW 2170  
 Australia  
**Telephone:** +612 9600-0777

**Emergency telephone number: Quality & HSE Director: 0412 054 611****2. HAZARDS IDENTIFICATION****AUSTRALIA CLASSIFICATION**

Based on available information, this material is not classified as hazardous according to criteria of Safe Work Australia.

**Poisons Schedule (Aust):** Not applicable**NEW ZEALAND CLASSIFICATION**

Based on available information, this material is not classified as hazardous according to criteria of ERMA New Zealand.

**DANGEROUS GOODS CLASSIFICATION**

Not classified as Dangerous Goods by the criteria of the "Australian Code for the Transport of Dangerous Goods by Road &amp; Rail" and the "New Zealand NZS5433: Transport of Dangerous Goods on Land".

**Product name:** Telstra Internal Optical Fibre Cables **Substance Key:** SDS-OF05**Issued:** 24/01/20 **Version:** 1.2 **Page:** 1 of 5**3. COMPOSITION INFORMATION**

CHEMICAL ENTITY	CAS NO.	PROPORTION
Cable may contain any or all of the following compounds	-	100%
Optical fibres	-	-
Polyamide (nylon) tight buffering	-	-
Polyvinyl chloride (PVC) tight buffering	-	-
Low smoke zero halogen (LSOH) tight buffering	-	-
Tube filling compound	-	-
Polybutylene terephthalate (PBT) tubes	-	-
Glass reinforced plastic (GRP) rod	-	-
Polyethylene terephthalate (PET) yarns/tapes	-	-
Water-swellaable yarns/tapes	-	-
Aramid yarns	-	-
Polyvinyl chloride (PVC) sheath	-	-
Low smoke zero halogen sheath (LSOH)	-	-
Ingredients determined to be non-hazardous		Balance
		100%

**4. FIRST AID MEASURES**

If poisoning occurs, contact a doctor or Poisons Information Centre (Phone Australia 131 126, New Zealand 0800 764 766).

**Inhalation:** Not an expected route of exposure. However, if dust exposure occurs during cutting, remove victim from exposure. Remove contaminated clothing and loosen remaining clothing. Allow patient to assume most comfortable position and keep warm. Keep at rest until fully recovered. Seek medical advice if effects persist.**Skin contact:** If puncture wounds, cuts or irritation occurs, flush skin with running water. Seek medical assistance if bleeding from puncture wounds or cuts cannot be stemmed. Seek medical assistance if irritation occurs.**Eye contact:** If in eyes wash out immediately with water. In all cases of eye contamination it is a sensible precaution to seek medical advice.**Ingestion:** Not an expected route of exposure. However, if material is ingested, rinse mouth with water. If swallowed, do NOT induce vomiting. Give a glass of water to drink. Never give anything by the mouth to an unconscious patient. If vomiting occurs give further water. Seek medical advice.**Notes to physician:** Treat symptomatically.**5. FIRE-FIGHTING MEASURES****Specific hazards:** Optical Fibre, Nylon, PVC, PBT, Water-swellaable yarns / tapes, Aramid yarns and LSOH will burn if ignited.**Fire fighting further advice:** On burning may emit toxic fumes. Fire fighters to wear self-contained breathing apparatus and suitable protective clothing if risk of exposure to vapour or products of combustion.**Hazchem Code:** Not applicable.**Suitable extinguishing media:** If material is involved in a fire use water fog (or if unavailable fine water spray), foam, dry agent (carbon dioxide, dry chemical powder). If material is in service use foam or dry agents (carbon dioxide, dry chemical powder).**Product name:** Telstra Internal Optical Fibre Cables **Substance Key:** SDS-OF05**Issued:** 24/01/20 **Version:** 1.2 **Page:** 2 of 5

**6. ACCIDENTAL RELEASE MEASURES**

Wear protective equipment to prevent skin and eye contamination. Avoid inhalation of dust if present. Collect for reuse or recycling.

**Dangerous Goods – Initial Emergency Response Guide No:** Not applicable.

**7. HANDLING AND STORAGE**

**Handling:** All staff shall be suitably trained in the handling of optical cables. Avoid eye contact. Avoid skin contact with cut ends of cable.

**Storage:** Store in a cool, dry, well-ventilated place and out of direct sunlight. Store away from incompatible materials described in Section 10.

**8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

**National occupational exposure limits:** No value assigned for this specific material by Safe Work Australia or Department of Labour New Zealand.

**Biological Limit Values:** As per the "National Model Regulations for the Control of Workplace Hazardous Substances (Safe Work Australia)" the ingredients in this material do not have a Biological Limit Allocated.

**Engineering measures:** Natural ventilation should be adequate under normal use conditions. Keep containers closed when not in use.

**Personal protection equipment:** OVERALLS, SAFETY SHOES, SAFETY GLASSES, GLOVES.

Wear overalls, safety glasses and impervious gloves. Available information suggests that gloves made from leather should be suitable for intermittent contact. However, due to variations in glove construction and local conditions, the user should make a final assessment. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storing or re-using.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

**Form / Colour / Odour:** Circular or 8 cables in a range of outside diameters.

<b>Solubility:</b>	Insoluble in water
<b>Specific Gravity (20 °C):</b>	N Av
<b>Relative Vapour Density (air=1):</b>	N App
<b>Vapour Pressure (20 °C):</b>	N App
<b>Flash Point (°C):</b>	N App
<b>Flammability Limits (%):</b>	N App
<b>Autoignition Temperature (°C):</b>	N Av
<b>Melting Point/Range (°C):</b>	N Av
<b>Boiling Point/Range (°C):</b>	N App
<b>Decomposition Point/Range (°C):</b>	>200
<b>pH:</b>	N App
<b>Viscosity:</b>	N App
<b>Evaporation Rate (n-Butyl acetate=1):</b>	N App
<b>Total VOC (g/Litre):</b>	N Av

(Typical values only - consult specification sheet)  
N Av = Not available      N App = Not applicable

**Product name:** Telstra Internal Optical Fibre Cables

**Substance Key:** SDS-OF05

**Issued:** 24/01/20

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**10. STABILITY AND REACTIVITY**

**Chemical stability:** This material is thermally stable when stored and used as directed.

**Conditions to avoid:** Elevated temperatures and sources of ignition.

**Incompatible Materials:** Oxidising agents.

**Hazardous decomposition products:** Oxides of carbon and nitrogen, smoke and other toxic fumes.

**Hazardous reactions:** No known hazardous reactions.

**11. TOXICOLOGICAL INFORMATION**

No adverse health effects expected if the product is handled in accordance with this SDS and the product label. Symptoms or effects that may arise if the product is mishandled and overexposure occurs are:

**Acute Effects**

**Inhalation:** Not expected to be a route of exposure. However, exposure to fine material due to mechanical cutting or abrading may be irritant to mucous membranes and respiratory tract.

**Skin contact:** Cut ends of fibre and cable may cause abrasive irritation, cuts or puncture wounds. Contact with skin may result in irritation.

**Eye contact:** May be an eye irritant. Exposure to the dust may cause discomfort due to particulate nature. May cause physical irritation to the eyes.

**Ingestion:** Not expected to be a route of exposure. Swallowing can result in nausea, vomiting and irritation of the gastrointestinal tract.

**Long Term Effects:** No information available for product.

**Acute toxicity / Chronic toxicity:** No LD50 data available for the product.

**12. ECOLOGICAL INFORMATION**

Avoid contaminating waterways.

**Eco-toxicity:** No information available.

**Persistence and degradability:** No information available.

**Mobility:** No information available.

**13. DISPOSAL CONSIDERATIONS**

Refer to State/Territory Land Waste Management Authority.

**Product name:** Telstra Internal Optical Fibre Cables

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**14. TRANSPORT INFORMATION****ROAD AND RAIL TRANSPORT**

Not classified as Dangerous Goods by the criteria of the "Australian Code for the Transport of Dangerous Goods by Road & Rail" and the "New Zealand NZS5433: Transport of Dangerous Goods on Land".

**MARINE TRANSPORT**

Not classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea.

**AIR TRANSPORT**

Not classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air.

**15. REGULATORY INFORMATION**

**Poisons Schedule (Aust):** Not applicable

All the constituents of this material are listed on the Australian Inventory of Chemical Substances (AICS).

**16. OTHER INFORMATION**

Issue	Date	Reason(s) For Issue:
1.0	01/07/15	First Issue. Supersedes MSDS-OF05
1.1	22/10/15	Emergency contact details updated
1.2	24/01/20	Emergency contact details & item numbers updated. No other technical changes.

Safety Data Sheets are updated frequently. Please ensure that you have a current copy.

This SDS summarises at the date of issue our best knowledge of the health and safety hazard information of the product, and in particular how to safely handle and use the product in the workplace. Since Prysmian Australia Pty Ltd cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, review this SDS in the context of how the user intends to handle and use the product in the workplace.

If clarification or further information is needed to ensure that an appropriate assessment can be made, the user should contact this company.

Our responsibility for product as sold is subject to our standard terms and conditions, a copy of which is sent to our customers and is also available upon request.

**Product name:** Telstra Internal Optical Fibre Cables

**Substance Key:** SDS-OF05

**Issued:** 24/01/20

**Version:** 1.2

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**Prysmian Australia Pty Ltd**

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[www.prysmiancable.com.au](http://www.prysmiancable.com.au)