

Features and Benefits

Applications

- Outdoor data communication connections
- CATV trunk lines
- Telecom trunk lines
- Telecom access net connections

Commerical Standards

ISO 11801 2nd edition
 EN 50173-1:2002
 IEC 60794-1
 IEC 60793-2-10 Category A1a.2
 EN 60793-2-10: type A1a.2
 ITU Recommendation G.651
 TIA/EIA-492 AAAB
 EN 50 173:2002 category OM3
 ISO/IEC 11801:2002 category OM3
 IEEE 802.3 - 2002 incl. amendment 802.3ae - 2002.

Technical Information

Mechanical Characteristics

Loose tube: ø2.8 mm gel filled
 loose tube with 2 –
 16 fibres; ø3.5 mm
 loose tube with 24
 fibres
 Strength member: E-Glass yarns
 Armouring: 0.15 mm corrugated
 steel tape
 Sheath: 1.5 mm black MDPE
 sheath, IEC 60811,
 IEC 60708

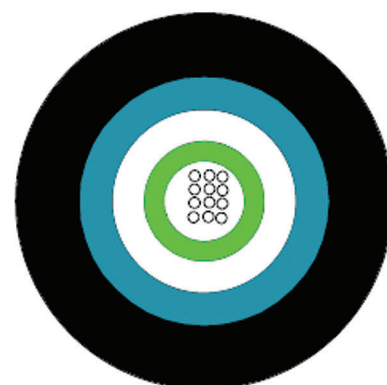
Optical/Electrical Characteristics

Attenuation IEC 60793-1-40
 Maximum value of cable at 850 nm:
 ≤ 3.0 dB/km
 Maximum value of cable at 1300 nm:
 ≤ 1.0 dB/km
 Maximum value of fibre (for reference
 only) at 850 nm: ≤ 2.5 dB/km
 Maximum value of fibre (for reference
 only) at 1300 nm: ≤ 0.7 dB/km
 Inhomogeneity of OTDR trace for any
 two 1000 metre fibre lengths:
 Max. 0.1 dB/km

Bandwidth IEC 60793-1-41
 OFL value at 850 nm:
 ≥ 1500 MHz • km
 OFL value at 1300 nm:
 ≥ 500 MHz • km
 Effective Modal Bandwidth (EMB)
 Effective Modal Bandwidth I assured
 by means of differential mode delay
 (DMD) measurement as specified in
 IEC 60793-1-49: ≥ 2000 MHz • km

Group index of refraction

IEC 60793-1-22
 Group index of refraction at 850 nm:
 1.482
 Group index of refraction at 1300 nm:
 1.477



MOLEX PREMISE NETWORKS

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 www.molexpn.com

EMEA
 Tel: 44 (0)2392 205800
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APAC
 Tel: 61 3 9971 7111
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Physical Properties

Order No.	Test Method	Description
Nominal outer diameter	-	2 - 16 fibres: 8.5 mm 2 - 16 fibres: 9.5 mm
Nominal weight		2 - 16 fibres: 75 kg/km 18 - 24 fibres: 80 kg/km
Tensile strength (dynamic)	E1	1000 N
Tensile strength (permanent)	E1	500 N
Compressive strength (crush)	E3	2000N
Impact	E4	10 Nm
Torsion	E7	5 cycles \pm 1 turn
Kink	E10	The cables do not form a kink when a loop is drawn together to a diameter of 100 mm
Min. Bending radius, unloaded	E11	R = 55 mm
Min. Bending radius, loaded	-	R = 110 mm
Temperature range	F1	Storage and installation: -40°C to +70°C Operation: -40°C to +70°C. The max. attenuation variation in the operational temperature range is: For M6 and M5 fibres: 0.5 dB/km For SM fibres: 0.2 dB/km.

Other Properties

Attribute	Measurement Method	Units	Limits
Core diameter	IEC/EN 60793-1-20	μ m	50 \pm 2.5
Cladding diameter	IEC/EN 60793-1-20	μ m	125.0 \pm 1.0
Cladding non-circularity	IEC/EN 60793-1-20	%	\leq 1.0
Core non-circularity	IEC/EN 60793-1-20	%	\leq 5
Core-cladding concentricity error	IEC/EN 60793-1-20	μ m	\leq 1.5
Primary coating diameter – uncoloured	IEC/EN 60793-1-21	μ m	242 \pm 7
Primary coating diameter – coloured	IEC/EN 60793-1-21	μ m	250 \pm 15
Primary coating non-circularity	IEC/EN 60793-1-21	%	\leq 5
Primary coating-cladding concentricity error	IEC/EN 60793-1-21	μ m	\leq 10
Proof stress level	IEC/EN 60793-1-30	GPa	\geq 0.7 (\approx 1 %)
Typical average strip force	IEC/EN 60793-1-32	N	1.7
Strip force (peak)	IEC/EN 60793-1-32	N	1.3 \leq F _{peak.strip} \leq 8.9
Numerical aperture:	IEC/EN 60793-1-43	N	0.200 \pm 0.015

ORDERING INFORMATION

Order No.	SAP No.	Description
CFR-00551	Consult Molex	Fibre Optic Cable, Armoured, Direct Burial OM3 MDPE 4 CORE
CFR-00552	Consult Molex	Fibre Optic Cable, Armoured, Direct Burial OM3 MDPE 6 CORE
CFR-00553	Consult Molex	Fibre Optic Cable, Armoured, Direct Burial OM3 MDPE 8 CORE
CFR-00554	Consult Molex	Fibre Optic Cable, Armoured, Direct Burial OM3 MDPE 12 CORE
CFR-00555	Consult Molex	Fibre Optic Cable, Armoured, Direct Burial OM3 MDPE 16 CORE
CFR-00556	Consult Molex	Fibre Optic Cable, Armoured, Direct Burial OM3 MDPE 24 CORE

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