FEATURES AND SPECIFICATIONS

Fibre Cable Distribution Grade OM3 50/125µm

Features and Benefits

Molex Premise Networks 850 nm Laser-Optimised 50 µm Multimode Fibre is designed for 10 Gb/s Application over 300m, type 47680 and is constructed to comply with the OM3 fibre optic cabling standard.

General:

This fibre fulfils the requirements of:

IEC 60793-2-10 Category A1a.2
EN 60793-2-10 type A1a.2
ITU Recommendation G.651
TIA/EIA-492 AAAB

- OM3 Standard
- Secondary Coated Fibres - Tight Buffered
- Internal or dry/free draining duct installation
- E-Glass Yarn Strength Member

Technical Information

Geometrical properties:

Core Diameter 50 µm ± 2.5 µm
Cladding diameter: 125 µm ± 1 µm
Core non-circularity: <5%
Cladding non-circularity: <=1%
Coating diameter (coloured) 250 µm ± 15 µm

Optical properties:

Attenuation (of cable with fibres):
At 850 nm: <= 3.0 dB/km
At 1300 nm: <= 1.0 dB/km

Minimum bandwidth:
At 850 nm: 1500MHz · km
At 1300 nm: 500MHz · km

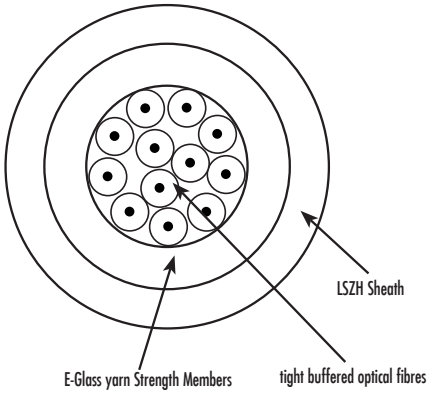
Numerical aperture: 0.200 ± 0.015
Inhomogenity of OTDR trace for any two 1000m lengths:
Max 0.1 dB/km
Group index of refraction:
At 850 nm: 1.482
At 1300 nm: 1.477
Proof test level 1% (0.7 GPa)

Standard multipurpose LSZH

Our standard Low Smoke Zero Halogen material is produced from polyolefin's and is filled with flame retardants in the form of aluminium or magnesium hydroxide. This sheathing compound is used for indoor as well as multipurpose cables. Standard sheath colour is green and nominal thickness is 1.1 mm.

Non-metallic protection and reinforcement of the cables

Glass yarns in the form of rovings are used as the strength member for tight buffered cables.



Fire rating

IEC 60332-1-2
IEC 60754-1
IEC 60754-2
IEC 61034-2

Physical properties:

Permanent tensile strength	2, 4, 6, 8 and 12 fibres 16 fibres 24 fibres	500 N 1000 N 1500 N
Short term tensile strength (some days)	2, 4, 6, 8 and 12 fibres 16 fibres 24 fibres	1000 N 1400 N 1600 N
Maximum installation load (a few hours)	2, 4, 6, 8 and 12 fibres 16 fibres 24 fibres	1500 N 2100 N 2400 N
Impact	20 J	
Crush (compressive strength)	3000 N/ 100 mm	
Torsion	5 cycles ± 1 turn	
Temperature range	Operation and Installation Storage	-20°C to 70°C -40°C to 70°C

Mechanical properties:

Fibre count	Nominal diameter	Nominal cable weight	Minimum bend radius Long term/short term
2	6 mm	40 kg/km	100/50 mm
4	6 mm	40 kg/km	100/50 mm
6	6 mm	45 kg/km	100/50 mm
8	6.5 mm	50 kg/km	100/50 mm
12	7.0 mm	55 kg/km	130/75 mm
16	7.5 mm	65 kg/km	130/75 mm
24	8.5 mm	85 kg/km	230/115 mm

ORDERING INFORMATION

Order No.	Description
CFR-00379	Internal Distribution Grade, 2 Core, TB, 50/125µm Laser Optimised
CFR-00380	Internal Distribution Grade, 4 Core, TB, 50/125µm Laser Optimised
CFR-00381	Internal Distribution Grade, 6 Core, TB, 50/125µm Laser Optimised
CFR-00382	Internal Distribution Grade, 8 Core, TB, 50/125µm Laser Optimised
CFR-00383	Internal Distribution Grade, 12 Core, TB, 50/125µm Laser Optimised
CFR-00384	Internal Distribution Grade, 16 Core, TB, 50/125µm Laser Optimised
CFR-00385	Internal Distribution Grade, 24 Core, TB, 50/125µm Laser Optimised

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