Fibre Optic

Universal Multi Loose Tube Fibre Optic Cable Rodent Resistant LSZH

Application and installation

This is a Universal indoor/outdoor cable for application as a trunk cable in LAN, MAN and WAN backbones. The cable can be installed ducts and on cable trays. The cable may be installed directly in the ground with proper sand filling.

Cable Design

Fibre Type	SM, OM1, OM2, OM3, OM4.
Central strength member	Ø 2.5 mm FRP rod.
Loose tube	Ø 2.3 mm gel-filled loose tubes, with 12 fibres each.
Water blocking	The core is water blocked using swellable tape and tread.
Wrapping	Polyester nonwoven
Rip Cord	Polyester ripcord for easy slitting of the sheath
Outer Jacket	Black LSZH 1,5 mm RT

Standards

Industrial Standards	EN 187 000, IEC 60794-2, IEC 60794-2-20, IEC 60794-2-21, ISO 11801-1, EN 50 173-1
Flammability Rating	IEC 60332-1-2; IEC 60754-1; IEC 60754-2; IEC 61034-2

Fibre Colour Code

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

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Physical Properties

Fibre count		12	48	72	96	120	144
Fibre distribution		1x12	4x12	6x12	8x12	10x12	12x12
Nominal diameter [mm]		10,5	10,5	10,5	12,0	13,5	15,0
Nominal weight [kg/km]		85	88	90	125	155	190
Minimum bending radius [mm] – short term	E11	105	105	105	120	135	150
Minimum bending radius [mm] – permanent	E11	210	210	210	240	270	300
Short term tensile strength [N]	E1	1800 (fibre strain ≤ 0.6%)					
Permanent tensile strength [N]	E1	1200 (fibre strain ≤ 0.25%)					
Crush (compressive strength) [N/100 mm]	E3	3000					
Impact [J]	E4	20					
Torsion	E7	5 cycles ± 1 turn					
Kink	E10	The cables do not form a kink when a loop is drawn together to a diameter of 12 times the cable nominal diameter					
Temperature range Installation	F1	-40°C to 70°C					
Temperature range Operation *)	F1	-40°C to 70°C					
Temperature range Storage	F1	-40°C to 70°C					
Water penetration	F5						

*) The cables will operate without any attenuation variation (≤0.05 dB) in the temperature interval -30°C to +60°C.
The cables will operate with a maximum attenuation variation of 0.1dB/km in the temperature interval -40°C to +70°C.