

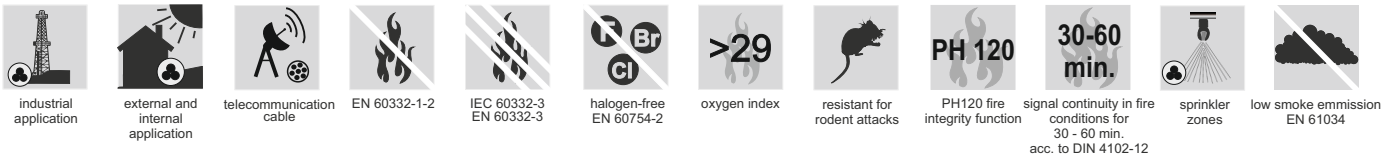
BiTfiber® Flame CLT 2 - 12 SMF

RoHS 2015/863/EU



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Fire resistant halogen-free fiber optic cable, single tube



Description:

Telecommunication optic cable with central tube, dry sealing, dielectric, rodent and fire resistant, halogen-free sheath.

Application:

Cable suitable for external and internal installation including public facilities, warehouses, road tunnels and railway tunnels. Recommended to be used in fire protection systems where transmission continuity and low smoke and toxic gases emission is crucial. Cables suitable to be used within sprinkler zones.

Design:

Optical fiber: singlemode ITU-T.G652D

Secondary coating: jelly filled loose tube, up to 12 fibers

Dry sealing: yarns or puff strings

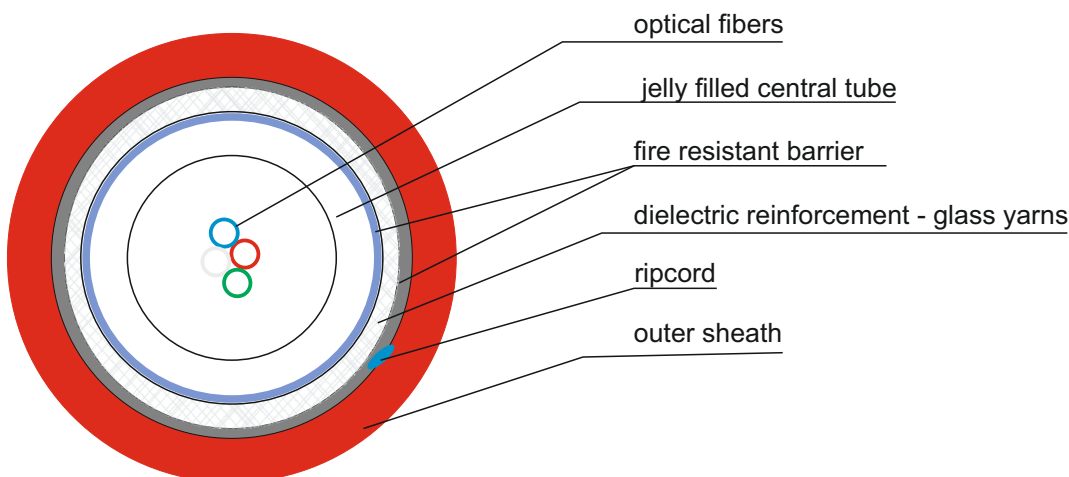
Reinforcement: glass yarn

Outer sheath: special halogen-free compound

Colours of fibers acc. to IEC 60304: red, green, blue, white, purple, orange, gray, yellow, brown, pink, black, turquoise

Tube colour: natural or red

Outer sheath colour: red



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Optical parameters:

Description	Unit	Value
Attenuation at 1310 nm	dB/km	≤ 0,35 (max 0,4)
Attenuation at 1550 nm	dB/km	≤ 0,22 (max 0,30)
Attenuation at 1625 nm	dB/km	≤ 0,35 (max 0,4)
Additional properties enclosed in fiber specification		

Physical parameters:

Description	Unit	Value
Secondary coating diameter-tube	mm	2,4±0,3
Outer jacket thickness	mm	1,1±0,15
Cable outer diameter	mm	7,2±0,2
Cable weight	kg/km	70

Mechanical properties:

Description	Method	Unit	Value
Tensile strength	dynamic	N	2000
	static		1000
Min. bending radius	short-lived	mm	10xø
	prolonged		15xø

Additional mechanical properties:

Description	Method	Value	Criteria of positive test outcome
Crush resistance	EN 60794-1-2-E3	2500 N; t=1 min	Change in fiber attenuation ≤ 0,1 dB @1550 nm (SMF) without any sheath damages
Impact resistance	EN 60794-1-2-E4	5 Nm; 3 strikes	
Multiple bending resistance	EN 60794-1-2-E6	R=20xø of cable; F=100N 100 cycles, 90°, 15 cycles/min	
Torsion resistance	EN 60794-1-2-E7	100N, 5 cycles, -180°/+180°	

Temperature parameters:

Temperature range	Operation	-30/+70°C
	Installation	-15/+60°C
	Transport and storage	-30/+70°C

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Tests:

Flame propagation test for a single insulated cable: EN 60332-1-2, IEC 60332-1-2 VDE 0482-332-1
Flame propagation test for vertically-mounted bunched cables: EN 60332-3-24, IEC 60332-3-24, VDE 0482-332-3-24
Test on corrosive gases emitted during burning: EN 60754-2, IEC 60754-2, VDE 0482-754-2
Smoke density emission during burning: EN 61034-2, IEC 61034-2, VDE 0482-1034-2
Maintaining signal continuity for 30-60 min: DIN 4102-12 and EN 50582
Fire integrity function of cable installation (PH120): EN 50200 and EN 50582
Water resistance in fire conditions: EN 50200 + E attachment and EN 50582
Reaction to fire: EN 13501-6 ; EN 50399, EN 50399

Cable type	CPR class
BiTfiber®Flame CLT 2 SMF BiTfiber®Flame CLT 12 SMF	B2ca-s1a, d0, a1
BiTfiber®Flame CLT 3-11 SMF	Cca-s1a, d0, a1

Installation of bunched cables:

Cables can be installed in cable ducts such as trays, ladder racks, single holders with fire resistance that is at least as high as fire resistance of the cable acc. to DIN 4102-12:1998.

Cable type	Manufacturer	Fixing type	Properties retention time
BiTfiber®Flame CLT 2-12 SMF	BAKS	KDS/KDSO60H60, max. load 2kg/m, trays mounted with max. 1500mm gap in between	30 min (E30)
BiTfiber®Flame CLT 2-12 SMF	PUK GROUP (EL-PUK)	RGS 60-30, max. tray load 10kg/m	30 min (E30)
BiTfiber®Flame CLT 2-12 SMF	HILTI	X-DFB MX - holders mounted with max. 300mm gap in between	30 min (E30)
BiTfiber®Flame CLT 2-12 SMF	HILTI	X-FB MX - holders mounted with max. 300mm gap in between	60 min (E60)
BiTfiber®Flame CLT 2-12 SMF	HILTI	X-EAS-MX - holders mounted with max. 300mm gap in between	60 min (E60)
BiTfiber®Flame CLT 2-12 SMF	BAKS	UDF-holders mounted with max. 300mm gap in between	60 min (E60)
BiTfiber®Flame CLT 2-12 SMF	PUK GROUP (EL-PUK)	K1-holders mounted with max. 600mm gap in between	60 min (E60)
BiTfiber®Flame CLT 2-12 SMF	PUK GROUP (EL-PUK)	K2-holders mounted with max. 600mm gap in between	60 min (E60)

Packaging:

Wooden drums

Cable Factory BITNER reserves the right to modify specifications without prior notification