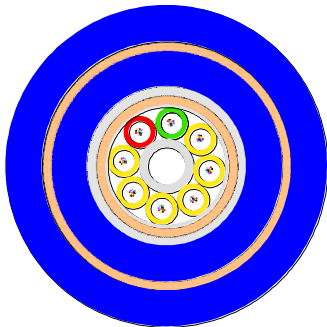
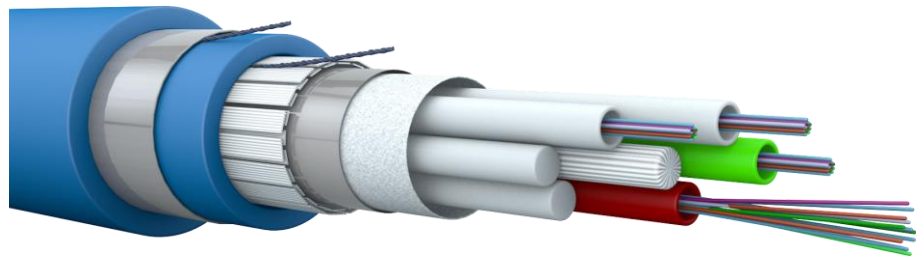


# Firetuf® OFC-LT-NM: Fire Resistant Universal Stranded Loose Tube Cable

**Non-metallic armoured, fire resistant cable, double LSZH sheathed, up to 144 fibres**



Sample Drawing : OFC LT NM 96E OS2



## Application and installation

Application: Railway Tunnels, subways, metro lines.

Installation: Indoor and in ducts outdoor

## Standards

EN 187 000, IEC 60794-2, IEC 60794-2-20, IEC 60794-2-21, ISO 11801-1, EN 50 173-1

## Fire rating

IEC 60331-25 (90)	Fire resistance: 90 minutes at 750°C (No fibre break)
IEC 60332-1-2	Single vertical wire test,
IEC 60332-3-24 = IEC 332-3C	Vertically-mounted bunched wires and cables
IEC 60754-1	No halogens
IEC 60754-2	No acid matters
IEC 61034-2	No dense smoke

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## Construction

Central strength member	FRP rod, naturel LSZH covered if needed.			
Loose tube	Ø 2.3 mm gel filled loose tubes with max. 12 fibres each, for layup refer to B04			
Fibre colour code	1	Red	7	Brown
	2	Green	8	Violet
	3	Blue	9	Aqua
	4	Yellow	10	Black
	5	White	11	Orange
	6	Grey	12	Pink
Tube colour code	First: Green Middle: Yellow if single mode and White if multimode fibres Last: Red			
Stranding	SZ stranding around the FRP rod			
Water blocking	The dry core is water blocked using swellable tape and/ or tread			
Reinforcement	Layer of glass yarns as reinforcement, and added fire protection			
Ripcord	Ripcord for easy slitting of the sheath			
Inner sheath	2.5 mm of blue LSZH sheath			
Wrapping	Layer of fire blocking tape			
Ripcord	Ripcord for easy slitting of the sheath			
Outer sheath	2.5 mm of blue LSZH sheath			
Print legend	DRAKA FIRETUF OFC-LT-NM<Fibre count><Fibre type><Fibre brand> <Item No><Batch Number><Meter mark>			

## Physical properties

Attribute	IEC 60794-1-21/22 Method	Limits						
		24	36	48	60	72	96	144
Fibre count	-	24	36	48	60	72	96	144
Build [number of tubes x fibres per tube ]		2X12+4F	3X12+3F	4X12+2F	5X12+1F	6x12	8x12	12x12
Nominal diameter [mm]	-	21.8	21.8	21.8	21.8	21.8	23.2	26
Nominal weight [kg/km]	-	529	529	529	529	529	592	740
Maximum Tension at installation (short term) [N]	E1	4000 Nt ( $\Delta\alpha$ reversible, after test)						
Tension operation max [N]	E1	1500 Nt (no fiber strain( $\leq 0.05$ ), $\Delta\alpha \leq 0.05$ dB)						
Crush (compressive strength) [N/100 mm]	E3	2000 N / 100mm, max 5 min ( $\Delta\alpha \leq 0.05$ dB, after the test)						
Impact [J]	E4	5 Nm, 3 impacts, r=300mm ( $\Delta\alpha \leq 0.05$ dB, after the test)						
Torsion	E7	100 N, +- 180°, 5 cycles ( $\Delta\alpha \leq 0.05$ dB, no damage)						
Kink	E10	The cables do not form a kink when a loop is drawn together to a diameter 20 times the cable nominal diameter						
Minimum bending radius [mm]	E11	Minimum bending radius without tension[mm] = 15 x cable diameter Minimum bending radius with tension[mm] = 20 x cable diameter						
Temperature range	F1	Installation 0 °C to 50 °C Operation *) -20 °C to 70 °C Storage -30 °C to 70 °C						
Water penetration	F5	No water on free end (core only)						

\*) The cables will operate without any attenuation variation ( $\leq 0.05$  dB) in the temperature interval -20°C to +60°C.

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\*\*\*) Values for multi-mode fibres, all optical measurements performed at 850 nm or 1300 nm. 0.10 dB /km or 0.10 dB (tensile and crush test will not be performed for MM fibres)

### Product codes – ordering information

Product code	Product description	Fibre count	Fibre type	Fibre data sheet
	FIRETUF OFC-LT-NM 24 G.652.D OS2	24	ESMF single mode G.652.D OS2	C06
	FIRETUF OFC-LT-NM 36 G.652.D OS2	36	ESMF single mode G.652.D OS2	C06
	FIRETUF OFC-LT-NM 48 G.652.D OS2	48	ESMF single mode G.652.D OS2	C06
	FIRETUF OFC-LT-NM 72 G.652.D OS2	72	ESMF single mode G.652.D OS2	C06
	FIRETUF OFC-LT-NM 96 G.652.D OS2	96	ESMF single mode G.652.D OS2	C06
	FIRETUF OFC-LT-NM 144 G.652.D OS2	144	ESMF single mode G.652.D OS2	C06