

# Firetuf™ OFC-UT-NM Fire Resistant Universal Central Tube Cable

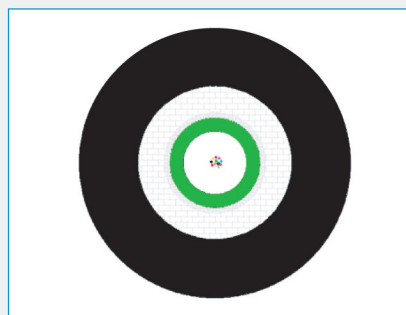
Indoor/Outdoor non-metallic LSHF-FR sheathed optical cable with 2 – 24 fibers.  
VDE: A/I-DQ(ZN)H

## Fire Rating

Fire resistance tests	
IEC 60331-25 (120)	Fire resistance: 120 minutes at 750 °C (No fibre break)
EN 50200 PH 120	Fire resistance with fire and impact 120 minutes 830 °C (No fibre break)
EN 50200 ANNEX E PH 30	Fire resistance until 15 minutes of fire and impact alone, followed by 15 minutes of fire, impact and water spray at 830 °C (No fibre break)
BS 8434 - 2	Fire resistance until 60 minutes of fire and impact alone, followed by 60 minutes of fire, impact and water spray at 930 °C (No fibre break)
Flame retardant tests	
IEC 60332-1-2	Single vertical wire test
Flame propagation test	
IEC 60332-3-24 = IEC 332-3C	Vertically-mounted bunched wires and cables
Halogen acid & gas tests	
IEC 60754-1	No halogens
IEC 60754-2	No acid matters
Smoke emission tests	
IEC 61034-2	No dense smoke

## Construction

Loose tube	Ø4.0 mm jelly filled loose tube green colored with up to 2 - 24 fibres	
Fibre colour code	1 Red	13 Yellow w/mark per 100 mm
	2 Green	14 White w/mark per 100 mm
	3 Blue	15 Grey w/mark per 100 mm
	4 Yellow	16 Turquoise w/mark per 100 mm
	5 White	17 Orange w/mark per 100 mm
	6 Grey	18 Pink w/mark per 100 mm
	7 Brown	19 Yellow w/mark every 50 mm
	8 Violet	20 White w/mark every 50 mm
	9 Turquoise	21 Grey w/mark every 50 mm
	10 Black	22 Turquoise w/mark every 50 mm
	11 Orange	23 Orange w/mark every 50 mm
	12 Pink	24 Pink w/mark every 50 mm
Fire barrier	Tape(s)	
Strength member	Water blocked E-Glass fibre elements	
Ripcord	1	
Inner sheath	2.5 mm black LSHF-FR sheath according to EN 50290-2-27 , UV stabilised	



## Application

The application of this cable is circumstances where a very high degree of fire safety is required as the cable will function during a fire, has limited fire spread, has limited smoke generation and is halogen free.

The typical installation environment is indoor and indoor/outdoor in and between public buildings, in tunnels, metro lines and other places where one need very high degree of fire safety and support for critical communication.

This cable is also suitable shipboard application.

The primary means of installation is on cable ladders, raceways and cable trays. The cable may also be pulled or blown into ducts over short distances. The cable can be installed outdoor in the open, but shall be not be installed directly exposed the sun.

## Standards

- ISO 11801 2nd edition, EN 50173-1:2002, IEC 60794-1

## Fire Rating

- IEC 60332-1, IEC 60332-3-24, IEC 61034-2, IEC 60754-1/2

## Physical Properties

Property	Test method	Value
Nominal outer diameter	-	12,1 mm
Nominal weight	-	167 kg/km
Maximum installation tensile strength	E1	2000 N ( $\Delta\alpha$ /I fibre 0.5%, $\Delta\alpha$ reversible) *
Compressive strength (crush)	E3	1500 N / 100 mm, max 5 min ( $\Delta\alpha$ reversible) *
Impact	E7	No fibre break, 5 Nm, 3 impacts, r=300mm
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 20xD (Cable diameter) mm
Min. bending radius, unloaded	E11	R = 121 mm
Min. bending radius, loaded	-	R = 240 mm
Temperature range	F1	Storage: -30°C to +60°C Installation: 0°C to +50°C Operation: -25°C to +70°C. ( $\Delta\alpha$ 0.05 dB /km)**
Water penetration	F5B	No water leakage after 24 hour, sample=3m, water=1m

\* Values for single-mode fibres, all optical measurements performed at 1550 nm,

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

## Ordering Information

P/N	Product Description	P.U
A/I-DQ(ZN)H	Indoor/outdoor non-metallic LSHF-FR sheathed optical cable with 2-24 fibres	4km/drum