



Product: [NMAD12HA048BKAA](#) 

Universal OFC MLT: Steel Central strength member, Gel filling loose tubes(12f/T), Gel filled core, WB Tape + LSZH Inner Jacket (black) + CST + LSZH Outer Jacket (black) 48F OS2

Product Description

Universal (Indoor/Outdoor) Gel filling loose tubes(12f/T), Gel filled core optical fiber Multi Loose Tube cable with Water Blocking tape, Low Smoke Zero Halogen inner jacket (black), Corrugated Steel Tape armor and Low Smoke Zero Halogen outer jacket (black), 48F OS2, IEC 60332-3-24 Flame rating

Technical Specifications

Product Overview

Product Category:	Fiber Multi-Loose Tube Cable
Suitable Applications:	For outdoor and indoor use in structured (data) wiring systems such as industrial backbone, campus backbone, building backbone (riser) and /or horizontal cabling. For outdoor and indoor use in networks for industrial, telecom, cable TV and/or broadcast. Easy to install in ducts, tunnels and trenches and /or tubes. Suitable for Direct Burial.

Fiber Specifications

Fiber Type:	OS2, G.652.D
Fiber Core Diameter:	9 µm
Fiber Diameter:	125 µm
Buffer Material:	PBT Polybutylene Terephthalate
Fiber Count:	48
Fiber Color Coding:	TIA-598-D

Cable Construction

Number of Active Subunits:	4
Number of Fillers:	2
Fibers Per Subunit:	12
Subunit Waterblocking:	Gel Filled
Subunit Color:	Blue, Orange, Green, Brown
Central Strength Member:	Steel Rod

Inner Jacket Specifications

Material:	LSZH - Low Smoke Zero Halogen (Flame Retardant)
Color:	Black
Number of Ripcords:	1

Armor Specifications

Armor Type and Material:	CST - Corrugated Steel Tape
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Outer Jacket Specifications

Jacket Material:	LSZH - Low Smoke Zero Halogen (Flame Retardant)
Nom. Diameter:	13.8 mm (0.543 in)
Color:	Black
Number of Ripcords:	1

Optical Characteristics

Wavelength	1310 nm	1550 nm
Max. Attenuation	0.36 dB/km	0.22 dB/km

Mode Field Diameter	9.2 μm	10.4 μm
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Mechanical Characteristics

Min. Bend Radius During Installation:	345 mm
Min. Bend Radius During Operation:	172.5 mm
Max. Tensile Strength During Installation:	3000 N (670 lbf)
Max. Tensile Strength During Operation:	1000 N (220 lbf)
Crush Resistance:	3000N/100mm

Mechanical Tests

Description	Tested Standard
Cable Min. Bend Radius Installation (Short Term)	IEC 60794-1-21-E11
Cable Min. Bend Radius Operation (Long Term)	IEC 60794-1-21-E11
Cable Max. Tensile Strength Installation (Short Term)	IEC 60794-1-21-E1
Cable Max. Tensile Strength Operation (Long Term)	IEC 60794-1-21-E1
Cable Max. Crush Resistance Installation (Short Term)	IEC 60794-1-21-E3
Cable Impact Resistance	IEC 60794-1-21-E4
Waterblocking	IEC 60794-F5

Bulk Cable Weight:	273 kg/km (183 lbs/1000ft)
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Temperature Range

Operating Temperature Range:	- 40°C to +70°C
Storage Temperature Range:	- 40°C to +70°C

Standards and Compliance

Environmental Suitability:	Indoor, Outdoor, Sunlight Resistance, UV Resistance, Burial
Flammability / Reaction to Fire:	IEC 60332-3-24
ISO/IEC Compliance:	IEC 60793-1-1/IEC 60794-1-1
European Directive Compliance:	EU Directive 2011/65/EU (RoHS 2)

History

Update and Revision:	Revision Number: 0.8 Revision Date: 10-04-2024
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