

Excel Enbeam OS2 Fibre Optic Cable Loose Tube 48 Core Eca Black

Item Code: 205-310

excel
without compromise.



✕ Water resistant & UV resistant

✕ Duct grade - rodent resistant

✕ Sequentially metre marked

✕ Cut to length service

✕ Euroclass Eca

✕ 25 Year system warranty

✕ CIBSE TM65 Embodied Carbon: 0.975 kg CO2e

Product Overview

Enbeam OS2 Singlemode Fibre Optic Cable Loose Tube 48 Core 9/125 Copolymer Eca Black, part of a huge range of OS2 fibre optic cables fully stocked at Mayflex.

Excel OS2 9/125 μ m loose tube optical fibre cables have been designed specifically for internal and external applications.

The singlemode fibre is G.652.D compliant low water peak grade. A layer of water blocking tape provides interstitial water blocking. The cables are constructed around multiple gel filled (non-dripping and silicon free) tubes containing up to 12 colour coded 250 μ m primary coated fibres.

Product Specifications

Feature	Values
Number of Cores	48
Type of tube	Loose tube
Number of fibres per tube	12
Fibre type	Single mode 9/125
Category	OS2
Rodent resistant	yes
Outer sheath material	Copolymer, thermoplastic (LS0H)

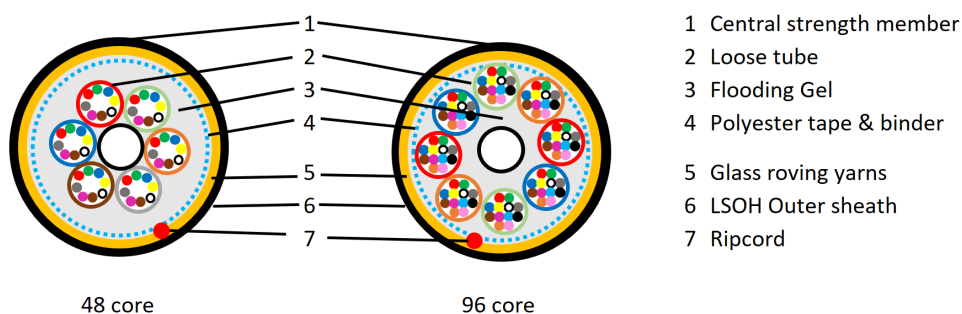
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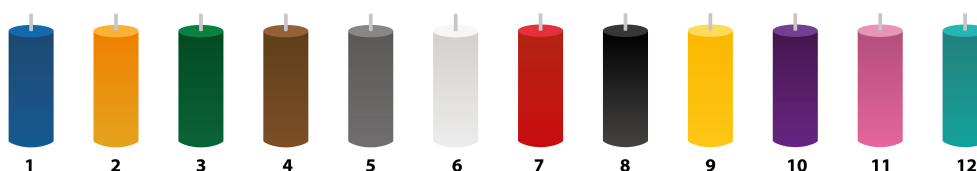


Outer sheath colour	Black
Flame retardant according to IEC 60332-1-2	yes
Reaction-to-fire class according to EN 13501-6	Eca
Outer diameter approx.	11 mm

Cross-section diagram



Colour coding (as per TIA-598-C)



For fibre core counts above 12 the colour sequence is repeated with the addition of a mark every 70mm for cores 13-24 and two marks for 25-36 and so on.

Cable specifications

Features	Values	48 Core	96 Core
Fibre Colour Code Standard	TIA 598		
Tensile Strength (during installation)	4000N		
Tensile strength (installed)	2000N		
Torsion	± 180 ^o		

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Tube inner diameter		1.5mm	1.7mm
Tube outer diameter		2.1mm	2.3mm
Central strength member		2.1 ± 0.1 mm	2.5 ± 0.1 mm
Minimum bend radius (long term)	20 x Diameter		
Minimum bend radius (short term)	10 x Diameter		
Moisture barrier	Flooding gel		
Number of ripcords	2		
Outer sheath diameter	2mm (nominal)		
Strength members	E-Glass Rovings		
Temperature range (installed)	-30°C to +70°C		
Temperature range (operation)	-30°C to +70°C		
Temperature range (storage)	-30°C to +70°C		
Cable weight		135.0 ± 15 kg/km	170 ± 20 kg/km

Fibre specifications

Features	Values
Fibre Type	G.652D (OS2)
Attenuation	at 1310 nm ≤ 0.36 dB/km
	at 1550 nm ≤ 0.23 dB/km
Chromatic Dispersion	1285 - 1330 nm ≤ 3.5 ps/nm.km
	1550 nm ≤ 18 ps/nm.km
Zero Dispersion Wavelength	1300 - 1324 nm
Zero Dispersion Slope	≤ 0.092 ps/nm ² .km
Polarisation Mode Dispersion	≤ 0.2 ps/√km
Cut-off Wavelength	≤ 1260 nm
Mode Field Diameter	at 1310 nm 9.3 ± 0.5 μm
Core Cladding Concentricity Error	≤ 0.8 μm
Cladding Diameter	125 ± 1 μm

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Cladding Non-circularity	≤ 1 %
Coating Diameter	245 ± 10 µm

Standards

Applicable standard	Subject
IEC 60332-1-2:2004	Tests on electric and optical fibre cables under fire conditions. Test for vertical flame propagation for a single insulated wire or cable. Procedure for 1 kW pre-mixed flame
IEC 60754-2:2014+A1:2020	Test on gases evolved during combustion of materials from cables - Part 2: Determination of acidity (by pH measurement) and conductivity
IEC 61034-2:2005+A2:2020	Measurement of smoke density of cables burning under defined conditions - Part 2: Test procedure and requirements
IEC 60793-1-1:2022	Optical fibres - Part 1-1: Measurement methods and test procedures - General and guidance
IEC 60793-1-20:2014	Optical fibres - Part 1-20: Measurement methods and test procedures - Fibre geometry
IEC 60793-1-21:2001	Optical fibres - Part 1-21: Measurement methods and test procedures - Coating geometry
IEC 60793-1-22:2001	Optical fibres - Part 1-22: Measurement methods and test procedures - Length measurement
IEC 60793-1-30:2010	Optical fibres - Part 1-30: Measurement methods and test procedures - Fibre proof test
ITU G.652.D	Characteristics of a single-mode optical fibre and cable
EN 50173-1:2018	Information technology. Generic cabling systems - General requirements
EN 50575: 2014 + A1: 2016	Power, control and communication cables — Cables for general applications in construction works subject to reaction to fire requirements
EN 50399:2011+A1:2016	Common test methods for cables under fire conditions. Heat release and smoke production measurement on cables during flame spread test. Test apparatus, procedures, results
ISO/IEC 11801-1:2017	Information technology - Generic cabling for customer premises: Part 1 General Requirements
ANSI/TIA 568-3.D	Optical Fiber Cabling and Components Standard
ANSI/TIA/EIA 598-D	Optical Fibre Cable Colour Coding

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RoHS-II/-III (2011/65/EU & 2015/863): 2023

Our products, demonstrate full adherence to the regulatory stipulations of the EU Directive 2011/65/EU (RoHS-II) and its corresponding delegated directive 2015/863 (RoHS-III).

WFD: 2023

Compliant to Waste Framework Directive

SCIP: 2023

Compliant - Does Not Contain Substances of Concern In articles as such or in complex objects (Products)

POPs (EU) No 2019/1021

EU Regulation for the restriction of Persistent Organic Pollutants.

Part Number Table

Part Number	Description
205-310	Excel Enbeam OS2 Fibre Optic Cable Loose Tube 48 Core Eca Black
205-312	Excel Enbeam OS2 Fibre Optic Cable Loose Tube 96 Core Eca Black

Excel is a world class premium performing end to end infrastructure solution designed, Manufactured, supported and delivered without compromise.

Contact us at sales@excel-networking.com



E&OE. Excel is a registered trade name of Mayflex Holdings Ltd.