

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

Item Code: 205-310



- 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 µm 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 µm 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) |

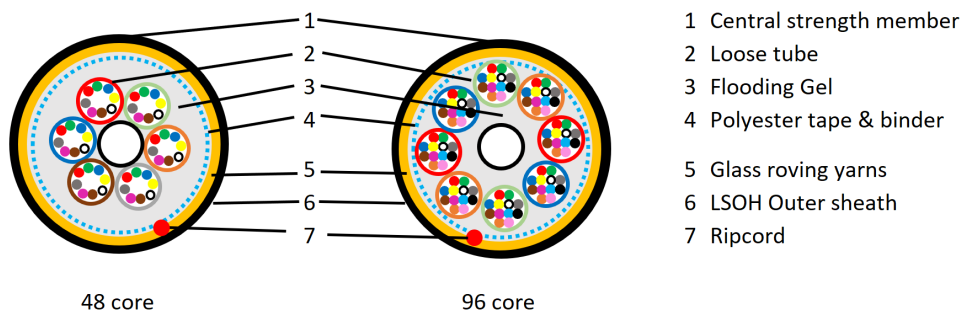
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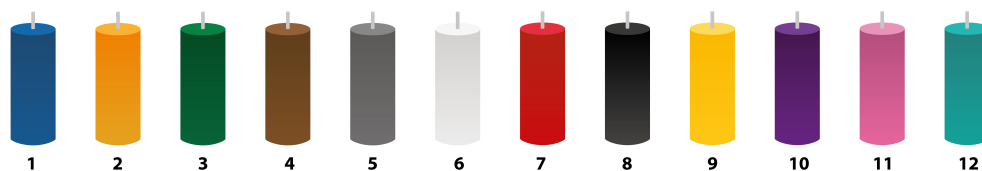


| | |
|--|-------|
| Outer sheath colour | Black |
| Flame retardant according to IEC 60332-1-2 | yes |
| Reaction-to-fire class according to EN 13501-6 | Eca |
| Outer diameter approx. | 11 mm |

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 | $\pm 180^{\circ}$ | | |

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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



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