

Enbeam OS2 Singlemode 9/125 48 Core Fibre Optic Cable Multi Loose Tube Eca - Black

Item Code: 205-310

excel
without compromise.



✕ Duct Grade

✕ Rigid Glass Central Strength Member

✕ Internal/External grade sheath

✕ Sequentially metre marked

✕ Cut to length service

✕ 25 Year system warranty

Product Overview

Excel OS2 9/125µm 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 and offers OS2 performance and OS1 backwards compatibility. A layer of water blocking tape provides interstitial water blocking. These compact, lightweight cables are extremely flexible and are quick and easy to install.

The cables are constructed around multiple gel filled (non-dripping and silicon free) tubes containing up to 12 colour coded 250µm primary coated fibres.

The print legend on the cable now includes information regarding the DOP number, Test and Classification of the cable for traceability.

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 |
| Outer sheath colour | Black |

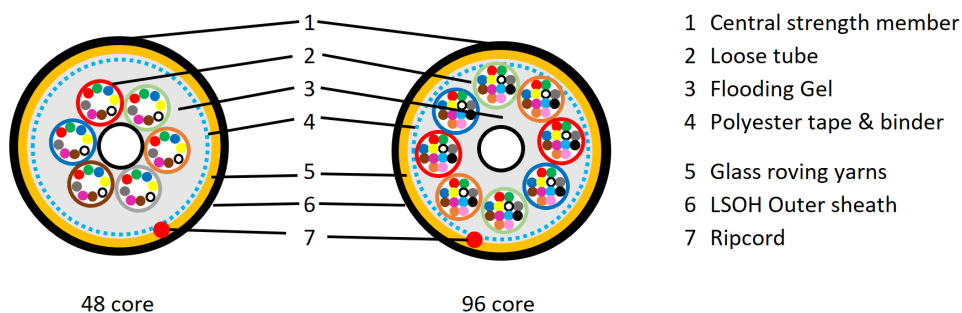
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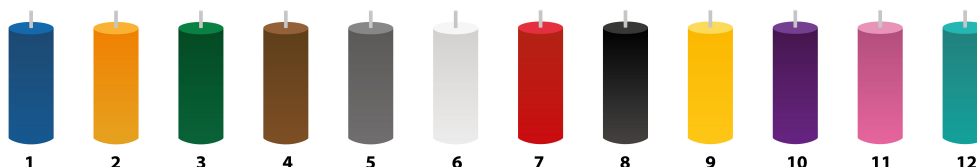
| | |
|--|-----------------------------|
| Reaction-to-fire class according to EN 13501-6 | Eca |
| Halogen free (acc. EN 60754-1/2) | Yes |
| Flame retardant | In accordance with EN 50399 |
| Outer diameter approx. | 11 mm |

Cross-section diagram



- 1 Central strength member
- 2 Loose tube
- 3 Flooding Gel
- 4 Polyester tape & binder
- 5 Glass roving yarns
- 6 LSOH Outer sheath
- 7 Ripcord

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 ° | | |

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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 60754-2:2011 | Test on gases evolved during combustion of materials from cables - Part 2: Determination of acidity (by pH measurement) and conductivity |
| IEC 61034-2:2005+A1:2013 | Measurement of smoke density of cables burning under defined conditions - Part 2: Test procedure and requirements |
| IEC 60793-1-1:2017 | 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 50173-1:2011 | 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

Restriction of Hazardous Substances - Compliant

Part Number Table

| Part Number | Description |
|-------------|--|
| 205-310 | Enbeam OS2 Singlemode 9/125 48 Core Fibre Optic Cable Multi Loose Tube Eca - Black |
| 205-312 | Enbeam OS2 Singlemode 9/125 96 Core Fibre Optic Cable Multi Loose Tube Eca - Black |

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Contact us at sales@excel-networking.com



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