

✕ 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: 0.617 kg CO₂e

Product Overview

Enbeam OM4 Multimode CST Armoured Fibre Optic Cable Loose Tube 12 Core 50/125 LSOH Eca Blue, part of a huge range of OM4 fibre optic cables fully stocked at Mayflex.

Excel corrugated steel tape (CST) OM4 50/125 µm armoured loose tube optical fibre cables have been designed specifically for applications requiring a high degree of mechanical protection.

These compact, lightweight cables are extremely rugged, provide rodent resistance and are quick and easy to install. The cables are constructed around a silica gel filled tube(s) containing up to 24 colour coded 250 µm buffered fibres, which is covered with E-glass strength members.

The CST cable has also been designed for direct burial, to ensure the correct installation a sand back fill must be used at all times.

Product Specifications

| Feature | Values |
|---------------------------|-------------------|
| Number of Cores | 12 |
| Type of tube | Loose tube |
| Number of fibres per tube | 12 |
| Fibre type | Multi mode 50/125 |
| Category | OM4 |
| Rodent resistant | yes |

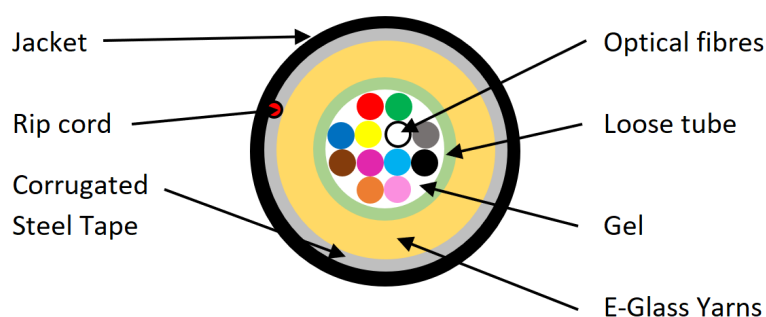
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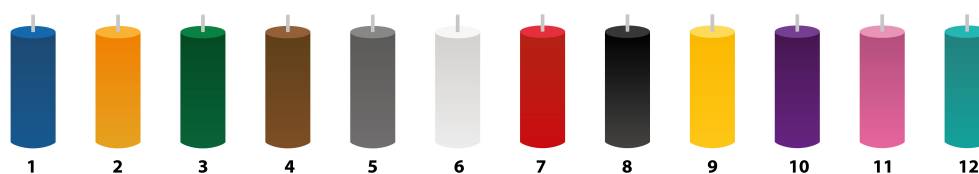
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| | |
|--|---------------------------------|
| Outer sheath material | Copolymer, thermoplastic (LSOH) |
| Outer sheath colour | Blue |
| Flame retardant according to IEC 60332-1-2 | yes |
| Reaction-to-fire class according to EN 13501-6 | Eca |
| Outer diameter approx. | 8.4 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 |
|-------------------------|-----------------------------|
| Tensile Strength | 2000 N |
| Crush Resistance | 3000 N/m |
| Torsion | ± 180 ° |
| Temperature performance | Installation -30°C to +70°C |

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| | | |
|----------------------------|----------------------|------------------|
| Operation | -30°C to +70°C | |
| Storage | -30°C to +70°C | |
| Loose tubes | Number | 1 |
| Material | PBT | |
| Loose Tube ID/OD | 4-16 Cores | 2.0/2.8 ± 0.1 mm |
| 24 Cores | 2.6/3.5 ± 0.1 mm | |
| Peripheral Strength Member | Glass Yarn + WS Yarn | |
| Armoring | Thickness | 0.150 mm |
| Material | ECCS Tape | |
| Outer Sheath | Thickness | 1.8 mm (Nominal) |
| Material | LSZH | |
| Ripcord | Number | 1 |
| Material | Polyester | |
| Overall Cable Diameter | 4-16 Cores | 8.4 ± 0.5 mm |
| 24 Cores | 9.2 ± 0.5 mm | |
| Cable Weight | 4-16 Cores | 100.0 ± 10 kg/km |
| 24 Cores | 115 ± 10 kg/km | |
| Bending Radius | Short term | 20 x Diameter |
| Long term | 10 x Diameter | |

Fibre specifications

| Features | | OM1 | OM2 | OM3 | OM4 |
|-----------------------------------|----------|---------------|--------------|---------------|---------------|
| Attenuation | @850 nm | ≤ 3.0 dB/km | ≤ 2.7 dB/km | ≤ 2.7 dB/km | ≤ 2.7 dB/km |
| | @1300 nm | ≤ 1.0 dB/km | ≤ 0.8 dB/km | ≤ 0.8 dB/km | |
| Bandwidth | @850 nm | ≥ 200 MHz.km | ≥ 500 MHz.km | ≥ 1500 MHz.km | ≥ 3500 MHz.km |
| | @1300 nm | ≥ 600 MHz.km | ≥ 500 MHz.km | ≥ 500 MHz.km | |
| Core Diameter | | 62.5 ± 2.5 µm | 50 ± 2.5 µm | 50 ± 2.5 µm | 50 ± 2.5 µm |
| Core Cladding Concentricity Error | | ≤ 1 µm | ≤ 1 µm | ≤ 1 µm | ≤ 1 µm |
| Cladding | | 125 ± 1 µm | 125 ± 1 µm | 125 ± 1 µm | 125 ± 1 µm |

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Diameter

| | | | | |
|-----------------------------|-------------|-------------|-------------|-------------|
| Cladding Non-circularity | ≤ 1 % | ≤ 1 % | ≤ 1 % | ≤ 1 % |
| Coating Diameter (Coloured) | 250 ± 15 µm | 250 ± 15 µm | 250 ± 15 µm | 250 ± 15 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 60793-1-1:2022 | Optical fibres - Part 1-1: Measurement methods and test procedures - General and guidance |
| IEC 60793-2-10:2017 | Sectional specification for A1 multimode fibres |
| 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 |
| IEC 60793-1-41:2010 | Optical fibres - Part 1-41: Measurement methods and test procedures - Bandwidth |
| ITU G.651.1 | Characteristics of a 50/125 µm multimode graded index optical fibre cable for the optical access network |
| 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. |

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| | 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 |
| 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 |
|-------------|---|
| 204-204 | Excel Enbeam OM4 Multimode Armoured CST Fibre Optic Cable Loose Tube 4 Core 50/125 LSOH Eca Blue |
| 204-208 | Excel Enbeam OM4 Multimode Armoured CST Fibre Optic Cable Loose Tube 8 Core 50/125 LSOH Eca Blue |
| 204-212 | Excel Enbeam OM4 Multimode Armoured CST Fibre Optic Cable Loose Tube 12 Core 50/125 LSOH Eca Blue |
| 204-216 | Excel Enbeam OM4 Multimode Armoured CST Fibre Optic Cable Loose Tube 16 Core 50/125 LSOH Eca Blue |
| 204-224 | Excel Enbeam OM4 Multimode Armoured CST Fibre Optic Cable Loose Tube 24 Core 50/125 LSOH Eca Blue |

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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