## Item Code: 204-224

## 入 Water Resistant \& UV Resistant

## x Duct grade - Rodent resistant

## Sequentially metre marked

## $x$ Cut to length service

## $\chi$ Euroclass Eca

## خ 25 Year system warranty

## Product Overview

Enbeam OM4 Multimode CST Armoured Fibre Optic Cable Loose Tube 24 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 m m 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 $250 \mu \mathrm{~m}$ 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 | 24 |
| Type of tube | Loose tube |
| Number of fibres per tube | 24 |
| Fibre type | Multi mode 50/125 |
| Category | OM4 |
| Rodent resistant | yes |
| Outer sheath material | Copolymer, thermoplastic (LSOH) |
| Outer sheath colour | Blue |

Excel Enbeam OM4 Multimode Armoured CST Fibre Optic Cable Loose Tube 24 Core 50/125 LSOH Eca BI...
without compromise.
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| 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 70 mm for cores 13-24 and two marks for 25-36 and so on.

## Cable specifications

| Features | Values |  |
| :--- | :--- | :--- |
| Tensile Strength | 2000 N |  |
| Crush Resistance | $3000 \mathrm{~N} / \mathrm{m}$ |  |
| Torsion | $\pm 180^{\circ}$ |  |
| Temperature performance | Installation | $-30^{\circ} \mathrm{C}$ to $+70^{\circ} \mathrm{C}$ |
|  | Operation | $-30^{\circ} \mathrm{C}$ to $+70^{\circ} \mathrm{C}$ |
|  | Storage | $-30^{\circ} \mathrm{C}$ to $+70^{\circ} \mathrm{C}$ |

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| Loose tubes | Number | 1 |
| :---: | :---: | :---: |
|  | Material | PBT |
| Loose Tube ID/OD | 4-16 Cores | 2.0/2.8 $\pm 0.1 \mathrm{~mm}$ |
|  | 24 Cores | 2.6/3.5 $\pm 0.1 \mathrm{~mm}$ |
| 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 | $8.4 \pm 0.5 \mathrm{~mm}$ |
|  | 24 Cores | $9.2 \pm 0.5 \mathrm{~mm}$ |
| Cable Weight | 4-16 Cores | $100.0 \pm 10 \mathrm{~kg} / \mathrm{km}$ |
|  | 24 Cores | $115 \pm 10 \mathrm{~kg} / \mathrm{km}$ |
| Bending Radius | Short term | $20 \times$ Diameter |
|  | Long term | $10 \times$ Diameter |

Fibre specifications

| Features |  | OM1 | OM2 | OM3 | OM4 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Attenuation | @850 nm | $\leq 3.0 \mathrm{~dB} / \mathrm{km}$ | $\leq 2.7 \mathrm{~dB} / \mathrm{km}$ | $\leq 2.7 \mathrm{~dB} / \mathrm{km}$ | $\leq 2.7 \mathrm{~dB} / \mathrm{km}$ |
|  | @1300 nm | $\leq 1.0 \mathrm{~dB} / \mathrm{km}$ | $\leq 0.8 \mathrm{~dB} / \mathrm{km}$ | $\leq 0.8 \mathrm{~dB} / \mathrm{km}$ | $\leq 0.8 \mathrm{~dB} / \mathrm{km}$ |
| Bandwidth | @850 nm | $\begin{aligned} & \geq 200 \\ & \mathrm{MHz} . \mathrm{km} \end{aligned}$ | $\begin{aligned} & \geq 500 \\ & \text { MHz.km } \end{aligned}$ | $\begin{aligned} & \geq 1500 \\ & \mathrm{MHz} . \mathrm{km} \end{aligned}$ | $\begin{aligned} & \geq 3500 \\ & \text { MHz.km } \end{aligned}$ |
|  | @1300 nm | $\begin{aligned} & \geq 600 \\ & \mathrm{MHz} . \mathrm{km} \end{aligned}$ | $\begin{aligned} & \geq 550 \\ & \mathrm{MHz} . \mathrm{km} \end{aligned}$ | $\begin{aligned} & \geq 500 \\ & \mathrm{MHz} . \mathrm{km} \end{aligned}$ | $\begin{aligned} & \geq 500 \\ & \mathrm{MHz} . \mathrm{km} \end{aligned}$ |
| Core Diameter |  | $62.5 \pm 2.5 \mu \mathrm{~m}$ | $50 \pm 2.5 \mu \mathrm{~m}$ | $50 \pm 2.5 \mu \mathrm{~m}$ | $50 \pm 2.5 \mu \mathrm{~m}$ |
| Core Cladding Concentricity Error |  | $\leq 1 \mu \mathrm{~m}$ | $\leq 1 \mu \mathrm{~m}$ | $\leq 1 \mu \mathrm{~m}$ | $\leq 1 \mu \mathrm{~m}$ |
| Cladding Diameter |  | $125 \pm 1 \mu \mathrm{~m}$ | $125 \pm 1 \mu \mathrm{~m}$ | $125 \pm 1 \mu \mathrm{~m}$ | $125 \pm 1 \mu \mathrm{~m}$ |
| Cladding Noncircularity |  | $\leq 1 \%$ | $\leq 1 \%$ | $\leq 1 \%$ | $\leq 1 \%$ |

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Coating
$250 \pm 15 \mu \mathrm{~m}$
$250 \pm 15 \mu \mathrm{~m}$
$250 \pm 15 \mu \mathrm{~m}$
$250 \pm 15 \mu \mathrm{~m}$
Diameter
(Coloured)

## Standards

Applicable Standard
IEC 60332-1-2:2004
IEC 60754-2:2011
IEC 61034-2:2005+A1:2013
IEC 60793-1-1:2022

IEC 60793-2-10:2017
IEC 60793-1-20:2014

IEC 60793-1-21:2001

IEC 60793-1-22:2001

IEC 60793-1-30:2010

IEC 60793-1-41:2010

## ITU G.651.1

EN 50173-1:2018

EN 50575: 2014 + A1: 2016

EN 50399:2011+A1:2016

## Subject

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

Test on gases evolved during combustion of materials from cables - Part 2: Determination of acidity (by pH measurement) and conductivity

Measurement of smoke density of cables burning under defined conditions - Part 2: Test procedure and requirements

Optical fibres - Part 1-1: Measurement methods and test procedures - General and guidance

Sectional specification for A1 multimode fibres
Optical fibres - Part 1-20: Measurement methods and test procedures - Fibre geometry

Optical fibres - Part 1-21: Measurement methods and test procedures - Coating geometry

Optical fibres - Part 1-22: Measurement methods and test procedures - Length measurement

Optical fibres - Part 1-30: Measurement methods and test procedures - Fibre proof test

Optical fibres - Part 1-41: Measurement methods and test procedures - Bandwidth

Characteristics of a 50/125 $\mu \mathrm{m}$ multimode graded index optical fibre cable for the optical access network

Information technology. Generic cabling systems General requirements

Power, control and communication cables - Cables for general applications in construction works subject to reaction to fire requirements

Common test methods for cables under fire conditions. Heat release and smoke production measurement on cables during flame spread test. Test apparatus, procedures, results

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ISO/IEC 11801-1:2017

ANSI/TIA 568-3.D
ANSI/TIA/EIA 598-D
RoHS-II/-III (2011/65/EU \& 2015/863): 2023

WFD: 2023
SCIP: 2023

POPs (EU) No 2019/1021

Information technology - Generic cabling for customer premises: Part 1 General Requirements

Optical Fiber Cabling and Components Standard
Optical Fibre Cable Colour Coding
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).

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

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

