

# Excel Enbeam OM4 Multimode Armoured CST Fibre Optic Cable Loose Tube 12 Core 50/125 LSOH Cca Bl...

excel  
without compromise.

Part Code: 274-212

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## Main Features

- / Water resistant & UV resistant
- / Duct grade - rodent resistant
- / Sequentially metre marked
- / Cut to length service
- / Euroclass Cca-s1a-d0-a1
- / 25 Year system warranty

## Product Overview

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

Excel corrugated steel tape (CST) OM4 50/125µm 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

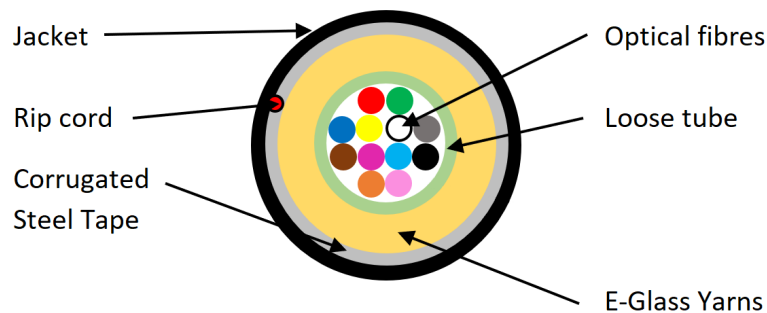
Feature	Values
Number of Cores	12
Type of tube	Loose tube
Number of fibres per tube	12
Fibre type	Multi mode 50/125
Category	OM4
Rodent resistant	yes
Outer sheath colour	Blue
Flame retardant according to IEC 60332-1-2	yes
Reaction-to-fire class according to EN 13501-6	Cca
Smoke development class according to EN 13501-6	s1a
Euro class flaming droplets/particles according to EN 13501-6	d0
Euro class acidity according to EN 13501-6	a1
Outer diameter approx.	8.3 mm

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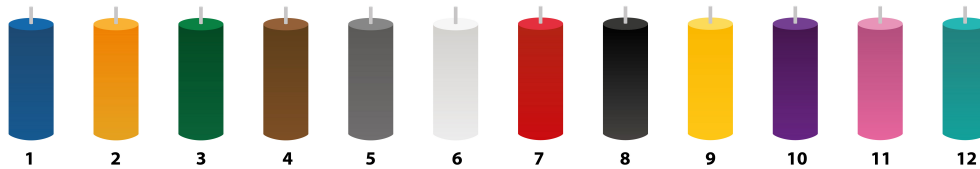
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## Cross-section diagram



## 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	<b>Installation</b> -30°C to +70°C
	<b>Operation</b> -30°C to +70°C

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	<b>Storage</b>	<b>-30°C to +70°C</b>
Loose tubes	<b>Number</b>	<b>1</b>
	<b>Material</b>	<b>PBT (Dry tube)</b>
Loose Tube ID/OD	<b>4-16 Cores</b>	<b>2.4/3.2 ± 0.3 mm</b>
	<b>24 Cores</b>	<b>3.2/4.0 ± 0.3 mm</b>
Peripheral Strength Member		<b>Glass Yarn</b>
Armoring	<b>Thickness</b>	<b>0.150 mm</b>
	<b>Material</b>	<b>ECCS Tape</b>
Outer Sheath	<b>Thickness</b>	<b>1.8 mm (Nominal)</b>
	<b>Material</b>	<b>LSZH</b>
Ripcord	<b>Number</b>	<b>1</b>
	<b>Material</b>	<b>Polyester</b>
Overall Cable Diameter	<b>4-16 Cores</b>	<b>9.0 ± 0.5 mm</b>
	<b>24 Cores</b>	<b>9.5 ± 0.5 mm</b>
Cable Weight	<b>4-16 Cores</b>	<b>100.0 ± 10 kg/km</b>
	<b>24 Cores</b>	<b>115 ± 10 kg/km</b>
Bending Radius	<b>Short term</b>	<b>20 x Diameter</b>
	<b>Long term</b>	<b>10 x Diameter</b>

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## 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	≤ 0.8 dB/km
Bandwidth	@850 nm	≥ 200 MHz.km	≥ 500 MHz.km	≥ 1500 MHz.km	≥ 3500 MHz.km
	@1300 nm	≥ 600 MHz.km	≥ 550 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 Diameter		125 ± 1 μm	125 ± 1 μm	125 ± 1 μm	125 ± 1 μm
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

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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. 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

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ANSI/TIA/EIA 598-D	Optical Fibre Cable Colour Coding
IEC 60794-1-2/F5	Generic specification – Optical fibre cable test procedures – Bending test (Method F5)
IEC 60794-1-205	Optical fibre cables – Part 1-205: Generic specification – Basic optical cable test procedures – Water penetration test
Directive 2008/98/EC (WFD)	Waste Framework Directive — compliant. Implemented in the UK through the Waste (England and Wales) Regulations 2011 (SI 2011 No. 988).
ECHA SCIP Database	Compliant; product does not contain SVHCs (Substances of Very High Concern) as defined under REACH Article 33(1). Submission obligations met under EU REACH and UK REACH.
Regulation (EU) 2019/1021 (POPs)	EU Regulation on Persistent Organic Pollutants — compliant. For Great Britain, compliance is aligned with the Persistent Organic Pollutants (Amendment) (EU Exit) Regulations 2020 (SI 2020 No. 1355).
Directive 2011/65/EU (RoHS II)	Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment — compliant. Applies within EU member states).
Directive (EU) 2015/863 (RoHS III)	Amending Directive 2011/65/EU to add four phthalates (DEHP, BBP, DBP, DIBP) to Annex II — compliant.
UK SI 2012 No. 3032	The Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012 (UK RoHS) — compliant for Great Britain. Retained EU law, as amended by the Product Safety and Metrology (Amendment etc.) (EU Exit) Regulations 2019.

## Part Code Table

Part Code	Description
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Excel Enbeam OM4 Multimode Armoured CST Fibre Optic Cable Loose Tube 24 Core 50/125 LSOH Cca Blue