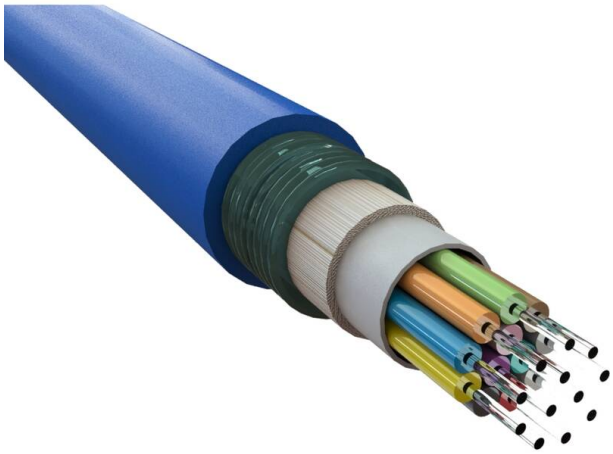
Excel Enbeam OM4 Multimode Armoured CST Fibre Optic Cable Loose Tube 12 Core 50/125 LSOH Eca Bl...

Item Code: 204-212



- 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.

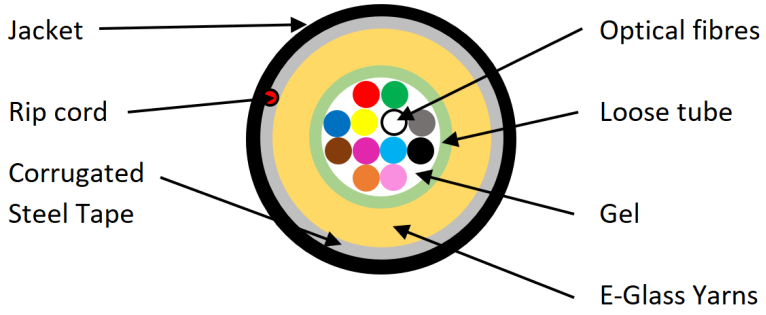
The CST cable has also been designed for direct burial, to ensure the correct installation a sand back fill must be used at all times.

Product Specifications

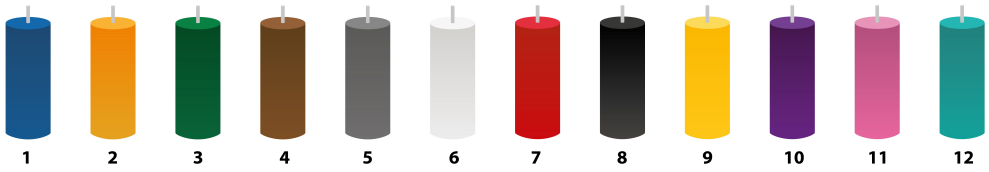
Feature	Values
Number of Cores	12
Type of tube	Loose tube
Number of fibres per tube	12
Fibre type	Multi mode 50/125
Category	OM4
Rodent resistant	yes

Outer sheath material	Copolymer, thermoplastic (LS0H)
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 ⁰
Temperature performance	Installation	-30ºC to +70ºC

	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	≤ 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	≤ 1µm
Cladding		125 ± 1 µm	125 ± 1 µm	125 ± 1 µm	125 ± 1 µm

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.

	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
IEC 60794-1-2/F5	Generic specification – Optical fibre cable test procedures – Bending test (Method F5)
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