

Item Code: 274-224









X Water resistant & UV resistant
X Duct grade - rodent resistant
X Sequentially metre marked
X Cut to length service
X Euroclass Cca-s1a-d0-a1
X 25 Year system warranty
X CIBSE TM65 Embodied Carbon: 0.707 kg CO2e

#### **Product Overview**

Enbeam OM4 Multimode CST Armoured Fibre Optic Cable Loose Tube 24 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 50/125  $\mu$ 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 250µm 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**

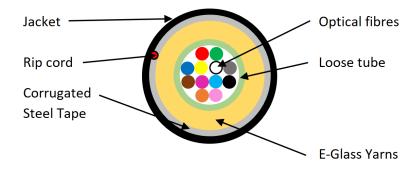
Feature	Values
Number of Cores	24
Type of tube	Loose tube
Number of fibres per tube	24
Fibre type	Multi mode 50/125
Category	OM4



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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	sla
Euro class flaming droplets/particles according to EN 13501-6	d0
Euro class acidity according to EN 13501-6	al
Outer diameter approx.	8.5 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.



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### **Cable specifications**

Features		Values
Tensile Strength		2000 N
Crush Resistance		3000 N/m
Torsion		± 180 °
Temperature performance	Installation	-30°C to +70°C
Operation	-30°C to +70°C	
Storage	-30°C to +70°C	
Loose tubes	Number	1
Material	PBT (Dry tube)	
Loose Tube ID/OD	4-16 Cores	2.4/3.2 ± 0.3 mm
24 Cores	3.2/4.0 ± 0.3 mm	
Peripheral Strength Member		Glass 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	$9.0 \pm 0.5  \text{mm}$
24 Cores	$9.5 \pm 0.5  \text{mm}$	
Cable Weight	4-16 Cores	$100.0 \pm 10  \text{kg/km}$
24 Cores	115 ± 10 kg/km	
Bending Radius	Short term	20 x Diameter
Long term	10 x Diameter	



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### Fibre specifications

Features		OM1	OM2	ОМЗ	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		$62.5 \pm 2.5  \mu m$	$50 \pm 2.5  \mu m$	$50 \pm 2.5  \mu m$	$50 \pm 2.5  \mu m$
Core Cladding Concentricity Error		≤1μm	≤1μm	≤1 μm	≤ 1µm
Cladding Diameter		$125 \pm 1  \mu m$	125 ± 1 μm	125 ± 1 μm	$125 \pm 1  \mu m$
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



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	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 $\mu m$ 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
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
274-204	Excel Enbeam OM4 Multimode Armoured CST Fibre Optic Cable Loose Tube 4 Core 50/125 Cca Blue
274-208	Excel Enbeam OM4 Multimode Armoured CST Fibre Optic Cable Loose Tube 8 Core 50/125 Cca Blue
274-212	Excel Enbeam OM4 Multimode Armoured CST Fibre Optic Cable Loose Tube 12



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	Core 50/125 LSOH Cca Blue
274-216	Excel Enbeam OM4 Multimode Armoured CST Fibre Optic Cable Loose Tube 16 Core 50/125 Cca Blue
274-224	Excel Enbeam OM4 Multimode Armoured CST Fibre Optic Cable Loose Tube 24 Core 50/125 LSOH Cca Blue

Excel is a world class premium performing end to end infrastructure solution designed, Manufactured, supported and delivered without compromise.



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E&OE. Excel is a registered trade name of Mayflex Holdings Ltd.