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

#### **Product Overview**

Excel corrugated steel tape (CST) OM4 50/125?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?m buffered fibres, which is covered with E-glass strength members.

The print legend on the cable now includes information regarding the DOP number, Test and Classification of the cable for traceability.

#### **Product Specifications**

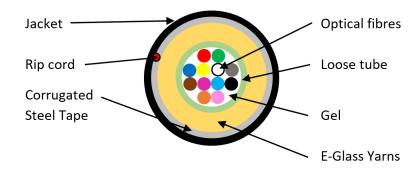
Feature	Values
Number of Cores	12
Type of tube	Loose tube
Number of fibres per tube	12
Fibre type	Multi mode 50/125
Category	OM4
Outer sheath colour	Blue
Reaction-to-fire class according to EN 13501-6	Cca
Smoke development class according to EN 13501-6	sla

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Euro class flaming droplets/particles according to EN 13501-6	d0
Euro class acidity according to EN 13501-6	al
Flame retardant	In accordance with EN 50399
Outer diameter approx.	8.3 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 (Dry tube)
Loose Tube ID/OD	4-16 Cores	$2.4/3.2 \pm 0.3  \text{mm}$
	24 Cores	$3.2/4.0 \pm 0.3 \mathrm{mm}$
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	$115 \pm 10  \text{kg/km}$
Bending Radius	Short term	20 x Diameter
	Long term	10 x Diameter

### **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	≤1 μm	≤1µm	≤ 1µm
Cladding		$125 \pm 1  \mu m$	125 ± 1 μm	125 ± 1 μm	125 ± 1 μm

excel without compromise.

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Diameter				
Cladding Non- circularity	≤1%	≤1%	≤1%	≤1%
Coating Diameter (Coloured)	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 60793-1-1:2017	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
ITU G.651.1	Characteristics of a 50/125 $\mu m$ multimode graded index optical fibre cable for the optical access network
EN 50173-1:2011	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,

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	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	Restriction of Hazardous Substances - Compliant

#### **Part Number Table**

Part Number	Description
274-204	Enbeam OM4 Multimode 50/125 4 Core Armoured CST Fibre Optic Cable Loose Tube Cca - Blue
274-208	Enbeam OM4 Multimode 50/125 8 Core Armoured CST Fibre Optic Cable Loose Tube Cca - Blue
274-212	Enbeam OM4 Multimode 50/125 12 Core Armoured CST Fibre Optic Cable Loose Tube Cca - Blue
274-216	Enbeam OM4 Multimode 50/125 16 Core Armoured CST Fibre Optic Cable Loose Tube Cca - Blue
274-224	Enbeam OM4 Multimode 50/125 24 Core Armoured CST Fibre Optic Cable Loose Tube Cca - 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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