

X Duct grade - rodent resistant
X Sequentially metre marked
X UV Resistant
X Cut to length service
X 25 Year system warranty
Eca X

Product Overview

Excel corrugated steel tape (CST) 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 print legend on the cable now includes information regarding the DOP number, Test and Classification of the cable for traceability.

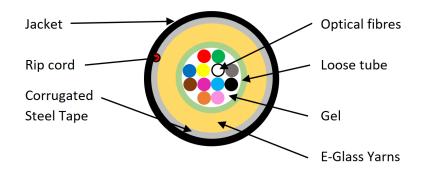
Product Specifications

Feature	Values
Number of Cores	4-24
Type of tube	Loose tube
Number of fibres per tube	4
Fibre type	Multi mode
Category	OM3/OM4
Armouring	Yes
Rodent resistant	Yes
Outer sheath material	Copolymer



Outer sheath colour	Blue
Reaction-to-fire class according to EN 13501-6	Eca
Halogen free (acc. EN 60754-1/2)	Yes
Flame retardant	In accordance with EN 50399
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 °
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
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	$8.4 \pm 0.5 \text{mm}$
	24 Cores	$9.2 \pm 0.5 \text{mm}$
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	≤1μm	≤1µm	≤ 1µm
Cladding		$125 \pm 1 \mu m$	$125 \pm 1 \mu m$	$125 \pm 1 \mu m$	125 ± 1 μm



 $250 \pm 15 \, \mu m$

 $250 \pm 15 \,\mu m$

Diameter				
Cladding Non- circularity	≤1%	≤1%	≤1%	≤1%

 $250 \pm 15 \, \mu m$

 $250 \pm 15 \, \mu m$

Coating Diameter (Coloured)

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
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
RoHS	Restriction of Hazardous Substances - Compliant
WFD	Compliant to Waste Framework Directive
SCIP	Compliant - Does Not Contain Substances of Concern in Products

Part Number Table

Part Number	Description
205-280	Enbeam OM3 Multimode 50/125 4 Core Armoured CST Fibre Optic Cable Loose Tube Eca - Blue
205-281	Enbeam OM3 Multimode 50/125 8 Core Armoured CST Fibre Optic Cable Loose Tube Eca - Blue
205-282	Enbeam OM3 Multimode 50/125 12 Core Armoured CST Fibre Optic Cable Loose Tube Eca - Blue
205-283	Enbeam OM3 Multimode 50/125 16 Core Armoured CST Fibre Optic Cable Loose Tube Eca - Blue
205-284	Enbeam OM3 Multimode 50/125 24 Core Armoured CST Fibre Optic Cable Loose Tube Eca - Blue
204-204	Enbeam OM4 Multimode 50/125 4 Core Armoured CST Fibre Optic Cable Loose Tube Eca - Blue
204-208	Enbeam OM4 Multimode 50/125 8 Core Armoured CST Fibre Optic Cable Loose Tube Eca - Blue
204-212	Enbeam OM4 Multimode 50/125 12 Core Armoured CST Fibre Optic Cable Loose Tube Eca - Blue
204-216	Enbeam OM4 Multimode 50/125 16 Core Armoured CST Fibre Optic Cable Loose Tube Eca - Blue
204-224	Enbeam OM4 Multimode 50/125 24 Core Armoured CST Fibre Optic Cable Loose Tube Eca - Blue

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



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