

## **Product Overview**

Excel corrugated steel tape (CST) OS2 9/125µm armoured loose tube optical fibre cables have been designed specifically for applications requiring a high degree of mechanical protection.

The singlemode fibre is G.652.D compliant low water peak grade and offers OS2 performance and OS1 backwards compatibility. These compact, lightweight cables are extremely rugged, provide rodent resistance and are quick and easy to install.

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

## **Product Specifications**

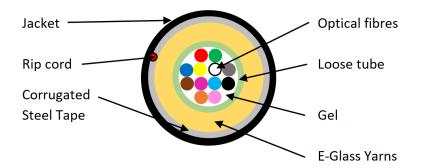
Feature	Values
Number of Cores	24
Type of tube	Loose tube
Number of fibres per tube	24
Fibre type	Single mode 9/125
Category	OS2
Armouring	Yes
Rodent resistant	Yes
Outer sheath material	Copolymer
Outer sheath colour	Blue



Item Code: 295-309

Reaction-to-fire class according to EN 13501-6	B2ca
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
Halogen free (acc. EN 60754-1/2)	Yes
Flame retardant	In accordance with EN 50399
Outer diameter approx.	9.5 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	$3.2/4.0 \pm 0.3$ 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	$9.0 \pm 0.5$ mm
	24 Cores	9.5 ± 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		OS2
Attenuation	@1310 nm	≤ 0.36 dB/km
	@1550 nm	≤ 0.23 dB/km
Chromatic Dispersion	1285 - 1330 nm	≤ 3.5 ps/nm.km
	1550 nm	≤ 18 ps/nm.km
Zero Dispersion Wavelength		1300 - 1324 nm
Zero Dispersion Slope		≤ 0.092 ps/nm2.km
Polarisation Mode Dispersion		≤ 0.2 ps/√km
Cut-off Wavelength		≤ 1260 nm
Mode Field Diameter	@1310 nm	9.2 ± 0.4 μm
Core Cladding Concentricity Error		≤ 0.8 μm
Cladding Diameter		125 ± 1 μm
Cladding Non-circularity		≤1%
Coating Diameter (Uncoloured)		245 ± 10 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 60793-1-20:2014	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.652.D	Characteristics of a single-mode optical fibre and cable
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, 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
275-305	Enbeam OS2 Singlemode 9/125 4 Core Armoured CST Fibre Optic Cable Loose Tube Cca - Blue
275-306	Enbeam OS2 Singlemode 9/125 8 Core Armoured CST Fibre Optic Cable Loose Tube Cca - Blue
275-307	Enbeam OS2 Singlemode 9/125 12 Core Armoured CST Fibre Optic Cable Loose Tube Cca - Blue
275-308	Enbeam OS2 Singlemode 9/125 16 Core Armoured CST Fibre Optic Cable Loose Tube Cca - Blue
295-309	Enbeam OS2 Singlemode 9/125 24 Core Armoured CST Fibre Optic Cable Loose Tube B2ca - Blue

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



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