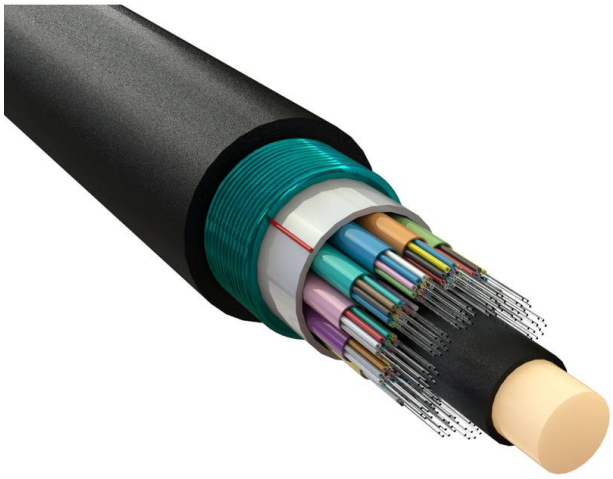
Excel Enbeam OS2 Armoured CST Fibre Optic Cable Loose Tube 144 Core HDPE Fca Black

Item Code: 333-144



- Water Resistant & UV Resistant
- Duct grade - Rodent resistant
- Sequentially metre marked
- Cut to length service
- Euroclass Fca
- High Density Polyethylene (HDPE) outer jacket

Product Overview

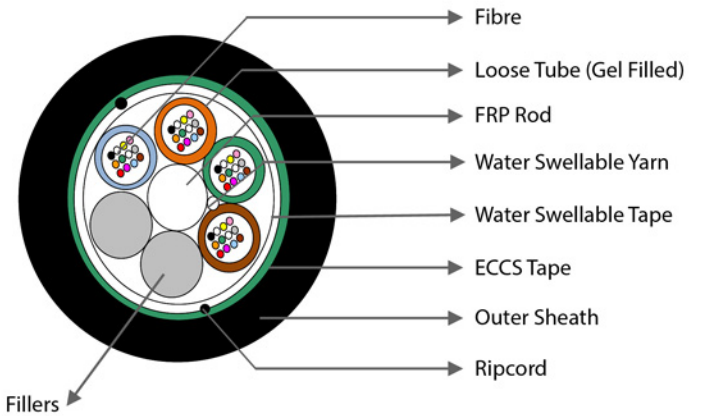
Enbeam OS2 Singlemode CST Armoured Fibre Optic Cable Loose Tube 144 Core 9/125 HDPE Fca Black, part of a huge range of OS2 fibre optic cables fully stocked at Mayflex.
Excel corrugated steel tape (CST) OS2 9/125µm armoured loose tube optical fibre cables have been designed specifically for applications requiring a high degree of mechanical protection.

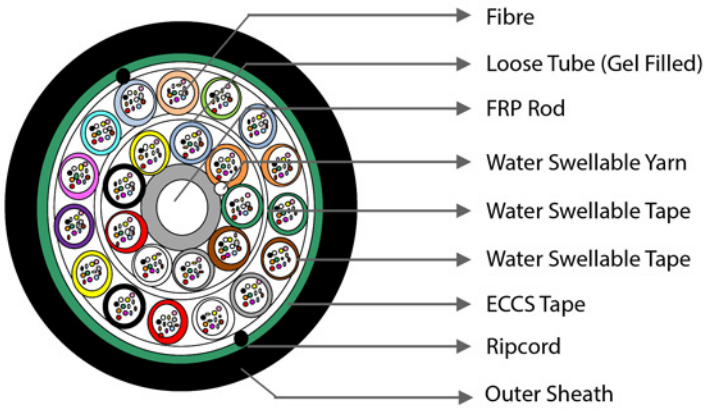
The singlemode fibre is G.652.D compliant low water peak grade and offers OS2 performance and OS1 backwards compatibility. These compact, lightweight cables are extremely rugged, provide rodent resistance and are quick and easy to install.

Product Specifications

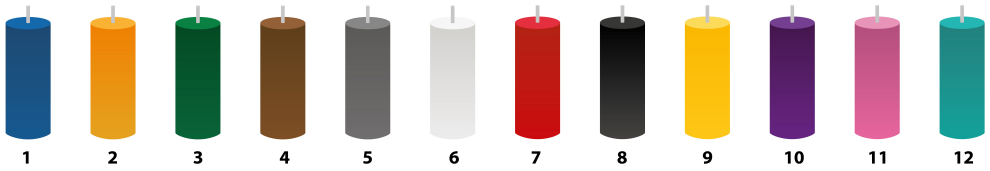
Feature	Values
Number of Cores	144
Type of tube	Loose tube
Number of fibres per tube	12
Fibre type	Single mode 9/125
Category	OS2
Rodent resistant	yes
Outer sheath colour	Black
Reaction-to-fire class according to EN 13501-6	Fca
Outer diameter approx.	15.5 mm

Product drawing





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
Cable weight (kg/km)	24-core	110.0 ± 15
	48-core	125.0 ± 15
	72-core	125.0 ± 15
	96-core	150.0 ± 15
	144-core	225.0 ± 15
	288-core	280.0 ± 25
Tensile Strength	24-core	2670 N
	48-core	2000 N
	72-core	2000 N
	96-core	2670 N
	144-core	3500 N
	288-core	2700 N
Crush Resistance		2000 N
Impact		15 N m
Torsion		± 180 ^{o}
Temperature performance	Installation	-20^{o}C to +70^{o}C
	Operation	-20^{o}C to +70^{o}C
	Storage	-20^{o}C to +70^{o}C
Loose tube	Material	PBT
Loose Tube ID/OD	24-core	1.2/1.9 ± 0.1 mm
	48-core	1.5/2.2 ± 0.1 mm
	72-core	1.5/2.2 ± 0.1 mm
	96-core	1.6/2.2 ± 0.1 mm
	144-core	1.5/2.2 ± 0.1 mm
	288-core	1.6/2.2 ± 0.1 mm
Central strength member dimensions	24-core	2.0 ± 0.1 mm
	48-core	2.3 ± 0.1 mm
	72-core	2.3 ± 0.1 mm
	96-core	2.5 ± 0.1 mm
	144-core	3.5 ± 0.1 mm

	288-core	3.0 ± 0.1 mm
Central strength member type	Type	FRP Rod
Moisture barrier		Water Swellable Yarn
Core wrapping		Water Swellable Yarn
Armoring	Material	ECCS Tape
Outer Sheath	Thickness	1.5 mm (Nominal)
	Material	HDPE
Ripcord	Number	2
	Material	Polyester
Bending Radius	During installation	20D
	After installation	10D

Fibre specifications

Features		Values
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
	@1550 nm	10.4 ± 0.5 µm
Core Cladding Concentricity Error	24-144 núcleos	≤ 0.6 µm
	288 núcleos	≤ 0.5 µm
Cladding Diameter		125 ± 0.7 µm
Cladding Non-circularity		≤ 0.7 %
Coating Diameter (Uncoloured)	24-144 núcleos	245 ± 5 µm
	288 núcleos	245 ± 10 µm

Standards

Applicable Standard	Subject
IEC 60793-1-1:2022	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 50173-1:2018	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
333-024	Excel Enbeam OS2 Armoured CST Fibre Optic Cable Loose Tube 24 Core HDPE Fca Black
333-048	Excel Enbeam OS2 Armoured CST Fibre Optic Cable Loose Tube 48 Core HDPE Fca Black
333-072	Excel Enbeam OS2 Armoured CST Fibre Optic Cable Loose Tube 72 Core HDPE Fca Black
333-096	Excel Enbeam OS2 Armoured CST Fibre Optic Cable Loose Tube 96 Core HDPE Fca Black
333-144	Excel Enbeam OS2 Armoured CST Fibre Optic Cable Loose Tube 144 Core HDPE Fca Black
333-288	Excel Enbeam OS2 Armoured CST Fibre Optic Cable Loose Tube 288 Core HDPE Fca Black

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

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