Excel Enbeam OS2 Singlemode SWA Direct Burial Fibre Optic Cable Loose Tube 12 Core 9/125 LSZH E...

Item Code: 205-360

- Water resistant & UV resistant
- Duct grade - rodent resistant
- Sequentially metre marked
- Cut to length service
- Euroclass Eca
- 25 Year system warranty
- CIBSE TM65 Embodied Carbon: 1.241 kg CO2e

Product Overview

Enbeam OS2 Singlemode SWA Direct Burial Fibre Optic Cable Loose Tube 12 Core 9/125 Eca Black, part of a huge range of OS2 fibre optic cables fully stocked at Mayflex.
Excel steel wire (SWA) OS2 9/125 µm armoured loose tube optical fibre cables have been designed specifically for direct burial and the most demanding of installations.

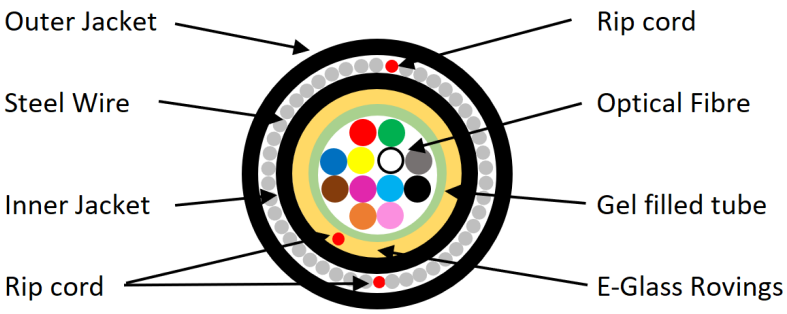
These cables are constructed from standard single loose tube cables which are then packed into a flexible but strong fibreglass water blocking strength member. An internal sheath with a rip cord is inserted with lengths of steel wire armouring over the top and then an oversheath is added providing a strong but flexible cable assembly.

Product Specifications

Feature	Values
Number of Cores	12
Type of tube	Loose tube
Number of fibres per tube	12
Fibre type	Single mode 9/125
Category	OS2
Rodent resistant	yes
Outer sheath material	Copolymer, thermoplastic (LS0H)

Outer sheath colour	Black
Flame retardant according to IEC 60332-1-2	yes
Reaction-to-fire class according to EN 13501-6	Eca
Outer diameter approx.	10.5 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.

Cable specifications

Features		Values
Tensile Strength		3000 N
Crush Resistance		1500 N/m
Torsion		± 180 ⁰
Temperature performance	Installation	-30ºC to +70ºC
	Operation	-30ºC to +70ºC

	Storage	-30ºC to +70ºC
Loose tubes	Number	1
	Material	PBT
Loose Tube ID/OD	4-16 Cores	2.2/3.2 ± 0.1 mm
	24 Cores	2.6/3.5 ± 0.1 mm
Peripheral Strength Member		Glass Yarn
Armoring	Thickness	0.8 mm
	Material	Soft Zinc Coated Steel Wires
Outer Sheath	Thickness	1.4 mm (Nominal)
	Material	LSZH
Ripcord	Number	3
	Material	Polyester
Overall Cable Diameter	4-16 Cores	10.0 ± 0.5 mm
	24 Cores	10.5 ± 0.5 mm
Cable Weight	4-16 Cores	165 ± 15 kg/km
	24 Cores	180 ± 15 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 60754-2:2014+A1:2020	Test on gases evolved during combustion of materials from cables - Part 2: Determination of acidity (by pH measurement) and conductivity
IEC 61034-2:2005+A2:2020	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 60793-1-20:2014	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
205-356	Excel Enbeam OS2 Singlemode SWA Direct Burial Fibre Optic Cable Loose Tube 4 Core 9/125 Eca Black
205-360	Excel Enbeam OS2 Singlemode SWA Direct Burial Fibre Optic Cable Loose Tube 12 Core 9/125 LSZH Eca Black
205-362	Excel Enbeam OS2 Singlemode SWA Direct Burial Fibre Optic Cable Loose Tube 24 Core 9/125 Eca Black
205-368	Excel Enbeam OS2 Singlemode SWA Direct Burial Fibre Optic Cable Loose Tube 8 Core 9/125 Eca Black
205-370	Excel Enbeam OS2 Singlemode SWA Direct Burial Fibre Optic Cable Loose Tube 16 Core 9/125 Eca 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.