Enbeam OS2 Singlemode 9/125 48 Core Fibre Optic Cable Multi Loose Tube Eca - Black

Item Code: 205-310

- Duct Grade
- Rigid Glass Central Strength Member
- Internal/External grade sheath
- Sequentially metre marked
- Cut to length service
- 25 Year system warranty

Product Overview

Excel OS2 9/125µm loose tube optical fibre cables have been designed specifically for internal and external applications. The singlemode fibre is G.652.D compliant low water peak grade and offers OS2 performance and OS1 backwards compatibility. A layer of water blocking tape provides interstitial water blocking. These compact, lightweight cables are extremely flexible and are quick and easy to install.

The cables are constructed around multiple gel filled (non-dripping and silicon free) tubes containing up to 12 colour coded 250µm primary coated fibres.

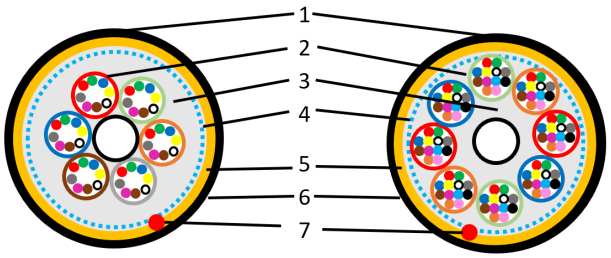
The print legend on the cable now includes information regarding the DOP number, Test and Classification of the cable for traceability.

Product Specifications

Feature	Values
Number of Cores	48
Type of tube	Loose tube
Number of fibres per tube	12
Fibre type	Single mode 9/125
Category	OS2
Outer sheath material	Copolymer
Outer sheath colour	Black
Reaction-to-fire class according to EN 13501-6	Eca

Flame retardant	In accordance with EN 50399
Outer diameter approx.	11 mm

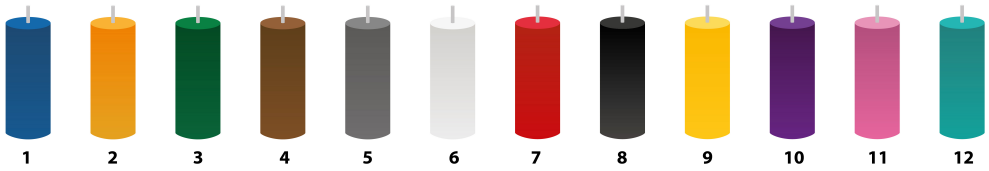
Cross-section diagram



48 core 96 core

1 Central strength member
2 Loose tube
3 Flooding Gel
4 Polyester tape & binder
5 Glass roving yarns
6 LSOH Outer sheath
7 Ripcord

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	48 Core	96 Core
Fibre Colour Code Standard	TIA 598		
Tensile Strength (during installation)	4000N		
Tensile strength (installed)	2000N		
Torsion	± 180 º		
Tube inner diameter		1.5mm	1.7mm
Tube outer diameter		2.1mm	2.3mm

Central strength member		2.1 ± 0.1 mm	2.5 ± 0.1 mm
Minimum bend radius (long term)	20 x Diameter		
Minimum bend radius (short term)	10 x Diameter		
Moisture barrier	Flooding gel		
Number of ripcords	2		
Outer sheath diameter	2mm (nominal)		
Strength members	E-Glass Rovings		
Temperature range (installed)	-30°C to +70°C		
Temperature range (operation)	-30°C to +70°C		
Temperature range (storage)	-30°C to +70°C		
Cable weight		135.0 ± 15 kg/km	170 ± 20 kg/km

Fibre specifications

Features		Values
Fibre Type		G.652D (OS2)
Attenuation	at 1310 nm	≤ 0.36 dB/km
	at 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	at 1310 nm	9.3 ± 0.5 µm
Core Cladding Concentricity Error		≤ 0.8 µm
Cladding Diameter		125 ± 1 µm
Cladding Non-circularity		≤ 1 %
Coating Diameter		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
205-310	Enbeam OS2 Singlemode 9/125 48 Core Fibre Optic Cable Multi Loose Tube Eca - Black
205-312	Enbeam OS2 Singlemode 9/125 96 Core Fibre Optic Cable Multi Loose Tube Eca - Black

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