Excel Enbeam OS2 Fibre Optic Cable Tight Buffered 12 Core Cca Black

Part Code: 205-324

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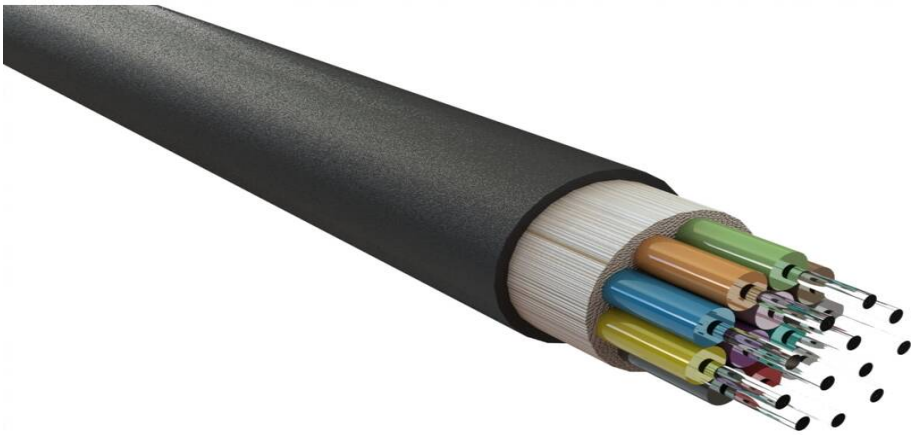
CIBSE TM65 Embodied Carbon: 0.219 kg CO2e



Main Features

- / Water resistant & UV resistant
- / Sequentially metre marked
- / Euroclass Cca-s1a-d0-a1
- / Duct grade rodent resistant
- / Cut to length service
- / 25 Year system warranty

Product Overview

Enbeam OS2 singlemode fibre optic cable tight buffered 12 core 9/125 Cca black, part of a huge range of OS2 fibre optic cables fully stocked at Mayflex. The singlemode fibre is G.652.D compliant low water peak grade and offers OS2 performance and OS1 backwards compatibility.

The cables are constructed with up to 24 colour coded 900 µm tight buffered fibres surrounded by an E-Glass as a strength member and covered with low smoke zero halogen, outer sheath allowing for internal installations.

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Product Specifications

Feature	Values
Number of Cores	**12**
Type of tube	**Tight**
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**
Low smoke (acc. IEC 61034-2)	**yes**
Reaction-to-fire class according to EN 13501-6	**Cca**
Smoke development class according to EN 13501-6	**s1a**
Euro class flaming droplets/particles according to EN 13501-6	**d0**
Euro class acidity according to EN 13501-6	**a1**
Outer diameter approx.	**7 mm**

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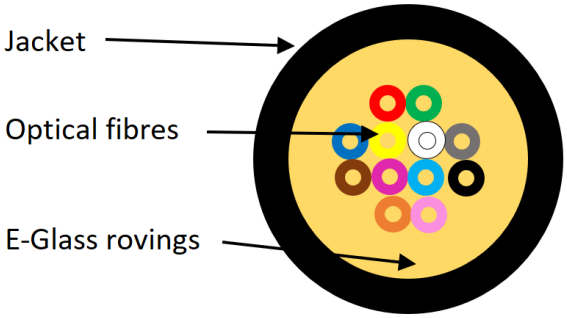
Cross-section diagram



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	
Tight Buffered Fiber	**Material**	**LSZH**
	Diameter	
Strength Member	**Material**	**E-glass Yarns**
Sheath	**Material**	**LSZH**
	Thickness	

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Cable Diameter	**Diameter (±0.3mm)**	**Approx. 6.5mm(4 cores), 6.6mm(6 cores), 7.0mm(8 cores)**
Cable Weight		
Tensile Strength	**Installation**	**800N(≤12 cores),1100N(>12 cores)**
	Working	
Cable Impact		
Crush Resistance	**Installation**	**1000N**
	Working	
Torsion		
Temperature Range	**Installation**	**-30°C to +60°C**
	Working	
	Storage	
Bending Radius	**Short term**	**20 x Diameter**
	Long term	

Fibre specifications

Features	Values	
Attenuation	**@1310nm**	**0.39 dB/km (Maximum)**
	@1550nm	
	For any 1000 metre	

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Reflex Index	**@1310nm**	**1.467**
	@1550nm	
Cladding Diameter		
Cladding Non-circularity		
Core – Cladding Concentricity Error		
Primary Coating Diameter		
Primary Coating Non-circularity		
Primary Coating – Cladding Concentricity Error		
Chromatic Dispersion Coefficient	**In 1285-1330nm**	**≤3.4 ps/km·nm**
	@1550nm	
	@1625nm	
Zero Dispersion Wavelength, λ0		
Zero Dispersion Slope		
Cut-off Wavelength, λcc		
Mode Field Diameter	**@1310nm**	**9.0±0.5 μm**
	@1550nm	
Macro Bending Loss(100 turns)	**25mm mandrel**	**≤0.05 dB @1310 nm & 1550 nm**
	30mm mandrel	
PMD Coefficient, Max. Uncabled		
PMDQ Link Design Value		
Proof Stress Level		
Fibre Curl Radius		
Stripe Force(peak)		
Dynamic Fatigue Resistance Aged and Unaged		

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Static Fatigue Resistance

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
IEC 60794-2-20:2013	Optical fibre cables - Part 2-20: Indoor cables - Family specification for multi-fibre optical cables
IEC 60793-2-50	Optical fibres - Part 2-50: Product specifications - Sectional specification for class B single-mode fibres.
ITU G.652.D	Characteristics of a single-mode optical fibre and cable
EN 50173-1:2018	Information technology. Generic cabling systems - General

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	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
Directive 2011/65/EU (RoHS II)	Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment — compliant. Applies within EU member states).
Directive (EU) 2015/863 (RoHS III)	Amending Directive 2011/65/EU to add four phthalates (DEHP, BBP, DBP, DIBP) to Annex II — compliant.
Directive 2008/98/EC (WFD)	Waste Framework Directive — compliant. Implemented in the UK through the Waste (England and Wales) Regulations 2011 (SI 2011 No. 988).
ECHA SCIP Database	Compliant; product does not contain SVHCs (Substances of Very High Concern) as defined under REACH Article 33(1). Submission obligations met under EU REACH and UK REACH.
Regulation (EU) 2019/1021 (POPs)	EU Regulation on Persistent Organic Pollutants — compliant. For Great Britain, compliance is aligned with the Persistent Organic Pollutants (Amendment) (EU Exit) Regulations 2020 (SI 2020 No. 1355).
UK SI 2012 No. 3032	The Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012 (UK RoHS) — compliant for Great Britain. Retained EU law, as amended by the Product Safety and Metrology (Amendment etc.) (EU Exit) Regulations 2019.

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Part Code Table

Part Code	Description
205-230	**Excel Enbeam OS2 Fibre Optic Cable Tight Buffered 6 Core LSZH Cca Black**
205-320	**Excel Enbeam OS2 Fibre Optic Cable Tight Buffered 4 Core LSZH Cca Black**
205-320-ITS	**Excel Enbeam OS2 Fibre Optic Cable Tight Buffered 4 Core LSZH Cca Black**
205-322	**Excel Enbeam OS2 Fibre Optic Cable Tight Buffered 8 Core Cca Black**
205-322-YW	**Excel Enbeam OS2 Fibre Optic Cable Tight Buffered 8 Core Cca Yellow**
205-324	**Excel Enbeam OS2 Fibre Optic Cable Tight Buffered 12 Core Cca Black**
205-324-ITS	**Excel Enbeam OS2 Fibre Optic Cable Tight Buffered 12 Core Cca Black**
205-326	**Excel Enbeam OS2 Fibre Optic Cable Tight Buffered 16 Core Cca Black**
205-328	**Excel Enbeam OS2 Fibre Optic Cable Tight Buffered 24 Core Cca Black**
205-328-YW	**Excel Enbeam OS2 Fibre Optic Cable Tight Buffered 24 Core LSZH Cca Yellow**

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