

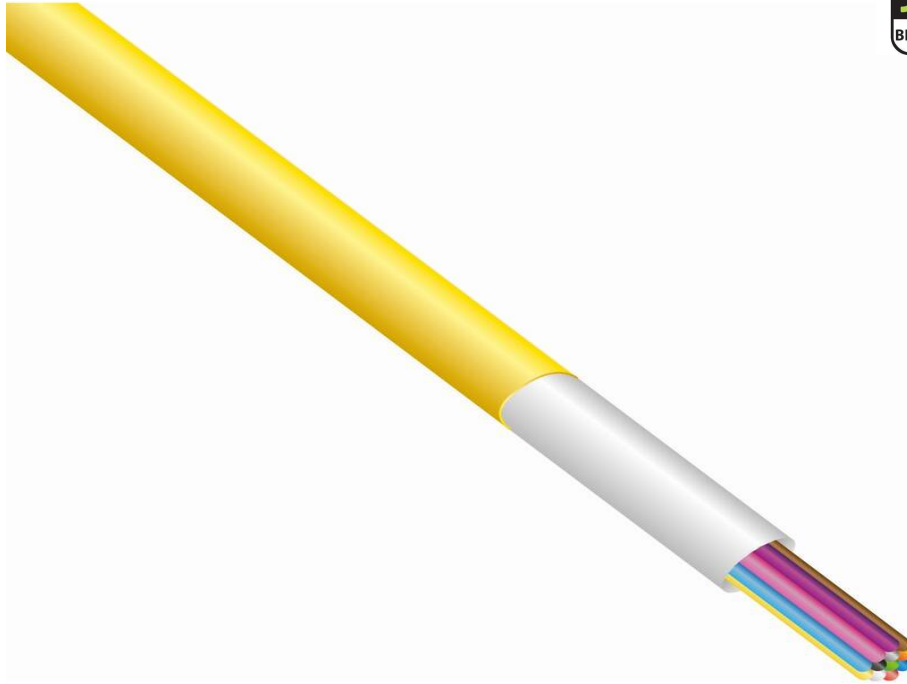
Excel Enbeam OS2 Singlemode G.657.A1 Blown Fibre EPFU 12 Fibre 9/125 Yellow

excel
without compromise.

Part Code: 208-814

sales@excel-networking.com
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CIBSE TM65 Embodied Carbon: 0.015 kg CO2e



Main Features

- / G.657.A1 bend insensitive
- / TIA-598-C colour coded
- / Coated for improving blowing performance
- / Available in 4, 8 & 12-fibre bundles
- / Gel free dielectric design
- / 25 year system warranty

Product Overview

Enbeam OS2 singlemode G.657.A1 blown fibre EPFU 12 fibre 9/125 yellow, part of a huge range of OS2 fibre optic cables fully stocked at Mayflex.

Enbeam Enhanced Performance Fibre Units (EPFU) are designed specifically for blown-fibre applications and are optimised for installation within our range of blown-fibre tubes.

The fibres are contained within a soft acrylate layer which cushions the fibres. This layer is coated with a hard layer for strength and finally a low-friction coating to ensure low drag and maximise blowing distances within the tubes.

The acrylate coatings are easy to remove to expose the 250-micron primary-coated fibres for quick splicing. The fibres are colour-coded

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according to TIA-598-C

Product Specifications

Feature	Values
Number of Cores	12
Fibre type	Single mode 9/125
Category	OS2
Outer sheath colour	Yellow
Outer diameter approx.	1.65 mm
Blown system	yes

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Product drawing



Cable specifications

Features		Values
Weight (kg/km)	4 Fibres	1.0 ± 0.3
	8 Fibres	1.8 ± 0.3
	12 Fibres	3.0 ± 0.3

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Tensile performance (N)	Short term	1*G
	Long term	0.3*G
Crush (N/100 mm)	Short term	100
	Long term	50
Blowing test equipment	PLUMETTAZ: UltimaZ™	
Standard duct	5.0/3.5 mm	
Pressure	12 bar	
Typical blowing distance	4 Fibres	1000 m
	8 Fibres	1000 m
	12 Fibres	800 m
Typical blowing time	4 Fibres	35 min
	8 Fibres	35 min
	12 Fibres	30 min
Temperature	Transportation and storage	-40°C to +70°C
	Installation	-5°C to +50°C
	Operation	-20°C to +70°C

Fibre specifications

Features		Values
Attenuation (before cabling)	@ 1310 nm	≤ 0.35 dB/km
	@ 1550 nm	≤ 0.21 dB/km
Attenuation (after cabling)	@ 1310 nm	≤ 0.36 dB/km
	@ 1550 nm	≤ 0.25 dB/km

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Attenuation change over wavelength range	1285 nm - 1330 nm	≤ 0.38 dB/km
	1525 nm - 1575 nm	≤ 0.25 dB/km
	1460 nm - 1625 nm	≤ 0.28 dB/km
Chromatic Dispersion Coefficient	1288 nm - 1339 nm	≤ 3.5 ps/km·nm
	1271nm - 1360 nm	≤ 5.3 ps/km·nm
	@ 1550 nm	≤ 18.0 ps/km·nm
Zero Dispersion Wavelength, λ_0		1300 - 1324 nm
Zero Dispersion Slope		≤ 0.092 ps/(km·nm ²)
Cut-off Wavelength, λ_{cc}		≤ 1260 nm
Macro Bending Loss	10 turns, 15 mm radius	≤ 0.25 dB @ 1550 nm
		≤ 1 dB @ 1625 nm
	1 turn, 10 mm radius	≤ 0.75 dB @ 1550 nm
		≤ 1.50 dB @ 1625 nm
Cladding Diameter		125.0 ± 0.7 μ m
Cladding Non-circularity		$\leq 0.7\%$
Coating Non-circularity		$\leq 5\%$
Coating Diameter		250 ± 10 μ m
Core - Cladding Concentricity Error		≤ 0.5 μ m
Coating - Cladding Concentricity Error		≤ 12 μ m
Fibre Curl Radius		≥ 4 m
Mode Field Diameter	@ 1310 nm	9.1 ± 0.3 μ m
	@ 1550 nm	10.3 ± 0.5 μ m
Point discontinuity		≤ 0.05 dB

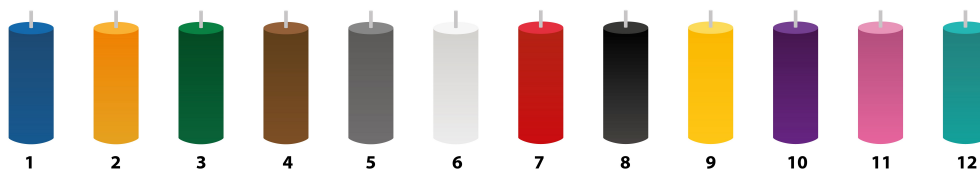
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Proof Stress Level		$\geq 0.7 \text{ Gpa}$ ($\approx 1\% \text{ strain}$)
Dynamic Tensile Strength	Median	> 3.8 GPa
Fatigue	Dynamic, aged and unaged	≥ 20
	Static, aged	≥ 23
Coating strip force	Average	1 N to 3 N
	Peak	$1.3 \leq F \leq 8.9$

Colour coding (as per TIA-598-C)



Standards

Applicable standard	Subject
ITU G.652.D	Characteristics of a single-mode optical fibre and cable
ITU-T G.657A1	Characteristics of a bending loss insensitive single-mode optical fiber
ANSI/TIA/EIA 598-C	Optical Fibre Cable Colour Coding
IEC 60794-1-2:2017	Optical fibre cables - Part 1-2: Generic specification - Basic optical cable test procedures - General guidance
IEC 60068-2-38:2009	Environmental testing - Part 2-38: Tests - Test Z/AD: Composite temperature/humidity cyclic test
IEC 60794-5:2014	Optical fibre cables - Part 5: Sectional specification - Microduct cabling for installation by blowing

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IEC 60794-5-10:2014	Optical fibre cables - Part 5-10: Family specification - Outdoor microduct optical fibre cables, microducts and protected microducts for installation by blowing
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.

Part Code Table

Part Code	Description
208-812	Excel Enbeam OS2 Singlemode G.657.A1 Blown Fibre EPFU 4 Fibre 9/125 Yellow
208-813	Excel Enbeam OS2 Singlemode G.657.A1 Blown Fibre EPFU 8 Fibre 9/125 Yellow
208-814	Excel Enbeam OS2 Singlemode G.657.A1 Blown Fibre EPFU 12 Fibre 9/125 Yellow

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