

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

Item Code: 208-814



- ✕ G.657.A1 bend insensitive
- ✕ Available in 4, 8 & 12-fibre bundles
- ✕ TIA-598-C colour coded
- ✕ Gel free dielectric design
- ✕ Coated for improving blowing performance
- ✕ 25 year system warranty
- ✕ CIBSE TM65 Embodied Carbon: 0.015 kg CO2e

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.

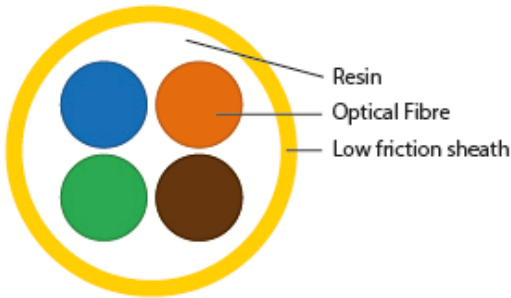
The acrylate coatings are easy to remove to expose the 250-micron primary-coated fibres for quick splicing. The fibres are colour-coded according to TIA-598-C

Product Specifications

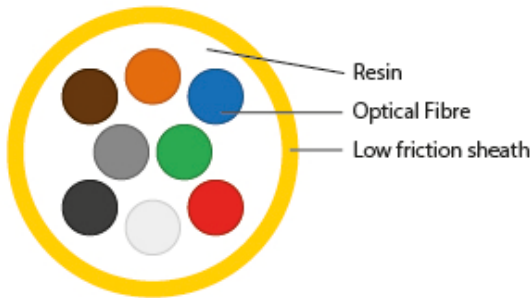
Feature	Values
Number of Cores	12
Fibre type	Single mode 9/125
Category	OS2
Outer sheath colour	Yellow
Outer diameter approx.	1.65 mm

Blown system	yes
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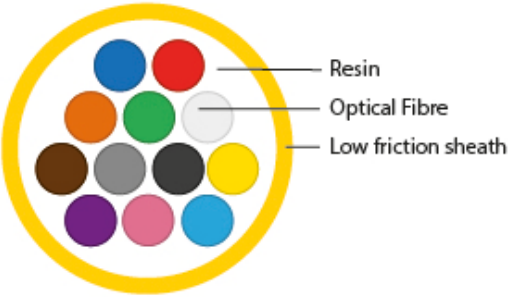
Product drawing



4  
Fibre Units



8  
Fibre Units



12  
Fibre Units

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	
Tensile performance (N)	Short term	1*G
Long term	0.3*G	

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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	
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, $\lambda_0$		1300 - 1324 nm
Zero Dispersion Slope		≤ 0.092 ps/(km·nm <sup>2</sup> )
Cut-off Wavelength, $\lambda_{cc}$		≤ 1260 nm
Macro Bending Loss	10 turns, 15 mm radius	≤ 0.25 dB @ 1550 nm

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$\leq 1 \text{ dB @ } 1625 \text{ nm}$

1 turn, 10 mm radius

$\leq 0.75 \text{ dB @ } 1550 \text{ nm}$

$\leq 1.50 \text{ dB @ } 1625 \text{ nm}$

Cladding Diameter	$125.0 \pm 0.7 \mu\text{m}$
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Cladding Non-circularity	$\leq 0.7\%$
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Coating Non-circularity	$\leq 5\%$
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Coating Diameter	$250 \pm 10 \mu\text{m}$
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Core - Cladding Concentricity Error	$\leq 0.5 \mu\text{m}$
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Coating - Cladding Concentricity Error	$\leq 12 \mu\text{m}$
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Fibre Curl Radius	$\geq 4 \text{ m}$
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Mode Field Diameter	@ 1310 nm	$9.1 \pm 0.3 \mu\text{m}$
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@ 1550 nm	$10.3 \pm 0.5 \mu\text{m}$
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Point discontinuity	$\leq 0.05 \text{ dB}$
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Proof Stress Level	$\geq 0.7 \text{ GPa } (\approx 1\% \text{ strain})$
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Dynamic Tensile Strength	Median	$> 3.8 \text{ GPa}$
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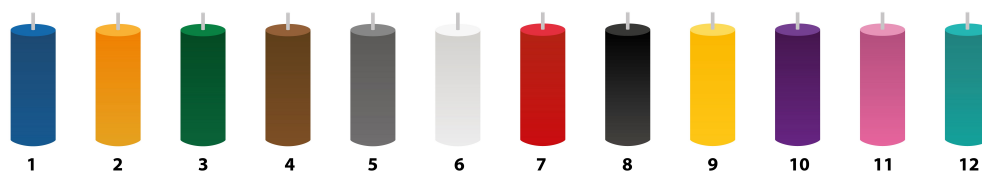
Fatigue	Dynamic, aged and unaged	$\geq 20$
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Static, aged	$\geq 23$
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Coating strip force	Average	1 N to 3 N
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Peak	$1.3 \leq F \leq 8.9$
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## Colour coding (as per TIA-598-C)



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## 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
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
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
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

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](mailto:sales@excel-networking.com)



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