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

Product Overview

Enbeam OS2 singlemode G.657.A1 blown fibre EPFU 4 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.

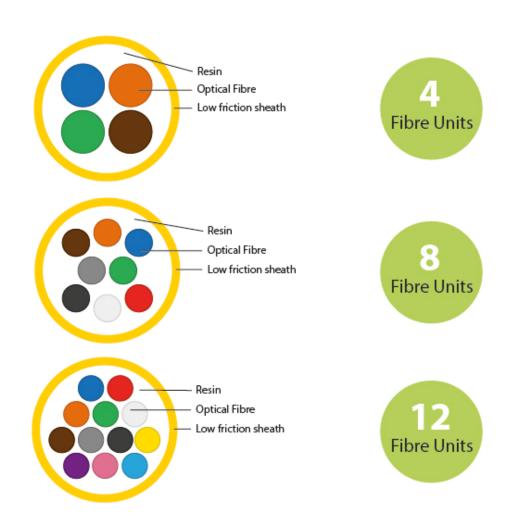
Product Specifications

Feature	Values
Number of Cores	4
Fibre type	Single mode 9/125
Category	OS2
Outer sheath colour	Yellow
Outer diameter approx.	1.15 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	
Tensile performance (N)	Short term	1*G
Long term	0.3*G	
Crush (N/100 mm)	Short term	100
Long term	50	

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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, λ0		1300 - 1324 nm
Zero Dispersion Slope		≤ 0.092 ps/(km·nm2)
Cut-off Wavelength, λcc		≤ 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	

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$\leq 1.50 \, dB @ 1625 \, nm$

Cladding Diameter $125.0 \pm 0.7 \mu m$ Cladding Non-circularity $\leq 0.7\%$ Coating Non-circularity $\leq 5\%$ Coating Diameter $250 \pm 10 \mu m$ Core - Cladding Concentricity Error $\leq 0.5 \mu m$ Coating - Cladding Concentricity Error $\leq 12 \mu m$ Fibre Curl Radius $\geq 4 m$ Mode Field Diameter $ @ 1310 nm $ $9.1 \pm 0.3 \mu m$ $ @ 1550 nm $ $10.3 \pm 0.5 \mu m$ Point discontinuity $\leq 0.05 dB$ Proof Stress Level $\geq 0.7 Gpa (\approx 1\% strain)$ 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			
Coating Non-circularity ≤ 5% Coating Diameter 250 ± 10 μm Core - Cladding Concentricity Error ≤0.5 μm Coating - Cladding Concentricity Error ≤12 μm Fibre Curl Radius ≥4 m Mode Field Diameter @ 1310 nm 9.1 ± 0.3 μm @ 1550 nm 10.3 ± 0.5 μm $= 0.05 dB$ Proof Stress Level ≥ 0.7 Gpa (≈1% 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	Cladding Diameter		$125.0 \pm 0.7 \mu \text{m}$
Coating Diameter 250 ± 10 μm Core - Cladding Concentricity Error ≤0.5 μm Coating - Cladding Concentricity Error ≤12 μm Fibre Curl Radius ≥4 m Mode Field Diameter @ 1310 nm 9.1 ± 0.3 μm @ 1550 nm 10.3 ± 0.5 μm Point discontinuity ≤ 0.05 dB Proof Stress Level ≥ 0.7 Gpa (≈1% 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	Cladding Non-circularity		≤ 0.7%
Core - Cladding Concentricity Error≤0.5 μmCoating - Cladding Concentricity Error≤12 μmFibre Curl Radius≥4 mMode Field Diameter@ 1310 nm $9.1 \pm 0.3 \mu m$ @ 1550 nm $10.3 \pm 0.5 \mu m$ Point discontinuity≤ 0.05 dBProof Stress Level≥ 0.7 Gpa (≈1% strain)Dynamic Tensile StrengthMedian> 3.8 GPaFatigueDynamic, aged and unaged≥ 20Static, aged≥ 23Coating strip forceAverage1 N to 3 N	Coating Non-circularity		≤ 5%
Coating - Cladding Concentricity ErrorFibre Curl Radius≥4 mMode Field Diameter@ 1310 nm $9.1 \pm 0.3 \mu m$ @ 1550 nm $10.3 \pm 0.5 \mu m$ ≤ 0.05 dBPoint discontinuity≤ 0.05 dBProof Stress Level≥ 0.7 Gpa (≈1% strain)Dynamic Tensile StrengthMedian> 3.8 GPaFatigueDynamic, aged and unaged≥ 20Static, aged≥ 23Coating strip forceAverage1 N to 3 N	Coating Diameter		$250 \pm 10 \mu m$
Fibre Curl Radius $\geq 4 \text{ m}$ Mode Field Diameter @ 1310 nm 9.1 \pm 0.3 μ m @ 1550 nm 10.3 \pm 0.5 μ m Point discontinuity \leq 0.05 dB Proof Stress Level \geq 0.7 Gpa (\approx 1% strain) Dynamic Tensile Strength Median $>$ 3.8 GPa Fatigue Dynamic, aged and unaged \geq 20 Static, aged \geq 23 Coating strip force Average 1 N to 3 N	Core - Cladding Concentricity Error		≤0.5 µm
Mode Field Diameter@ 1310 nm $9.1 \pm 0.3 \mu m$ @ 1550 nm $10.3 \pm 0.5 \mu m$ ≤ 0.05 dBPoint discontinuity≤ 0.05 dBProof Stress Level≥ 0.7 Gpa (≈1% strain)Dynamic Tensile StrengthMedian> 3.8 GPaFatigueDynamic, aged and unaged≥ 20Static, aged≥ 23Coating strip forceAverage1 N to 3 N			≤12 μm
@ 1550 nm $10.3 \pm 0.5 \mu m$ Point discontinuity $≤ 0.05 dB$ Proof Stress Level $≥ 0.7 Gpa (≈1\% strain)$ Dynamic Tensile Strength Median $> 3.8 GPa$ Fatigue Dynamic, aged and unaged $≥ 20$ Static, aged $≥ 23$ Coating strip force Average $1 N to 3 N$	Fibre Curl Radius		≥4 m
Point discontinuity ≤ 0.05 dB Proof Stress Level ≥ 0.7 Gpa (≈1% 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	Mode Field Diameter	@ 1310 nm	$9.1\pm0.3\mu m$
Proof Stress Level $≥ 0.7$ Gpa (≈1% 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	@ 1550 nm	$10.3 \pm 0.5 \mu m$	
Dynamic Tensile StrengthMedian > 3.8 GPaFatigueDynamic, aged and unaged ≥ 20 Static, aged ≥ 23 Coating strip forceAverage $1 \text{ N to } 3 \text{ N}$	Point discontinuity		≤ 0.05 dB
Fatigue Dynamic, aged and unaged ≥ 20 Static, aged ≥ 23 Coating strip force Average $1 \text{ N to } 3 \text{ N}$	Proof Stress Level		≥ 0.7 Gpa (≈1% strain)
Static, aged ≥ 23 Coating strip force Average 1 N to 3 N	Dynamic Tensile Strength	Median	> 3.8 GPa
Coating strip force Average 1 N to 3 N	Fatigue	Dynamic, aged and unaged	≥ 20
	Static, aged	≥ 23	
Peak 1.3 ≤ F ≤ 8.9	Coating strip force	Average	1 N to 3 N
	Peak	$1.3 \le F \le 8.9$	

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

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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

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