

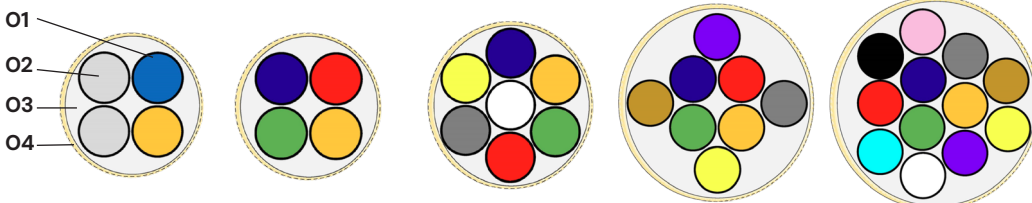
Generic Specification Blown Fibre Units, G657A.1

Blown Fibre Unit (BFU) with up to twelve fibres set in an encapsulating layer providing excellent dimensional and thermal stability. An outer thermoplastic layer provides a high level of protection and excellent installation properties. The FU is designed for blowing into microducts and tube bundles.

The fibres are dry, not coated with gel, thus permitting fast and contamination-free connections.
The BFU contain 'low water peak' singlemode fibres meeting the ITU-T recommendations.

Features & Benefits

- Fibre units are tested according to IEC 60794-5
- Blowing track: 2000m Performance confirmed
- Em-Liner outer sheath for Low Friction and best blowing performance

Product Specifications						
Construction 1: Optical Fibre 2: Filler (Mechanical Fibre) 3: Encapsulation 4: Low Friction Sheath						
		2F	4F	6F	8F	12F
Outer Diameter (Nominal) (mm)		1.1	1.1	1.3	1.5	1.6
Mass (Nominal) (mm)		1.0	1.0	1.6	1.8	2.2
Min Bend Radius (mm)		50	50	56	80	80
Fibre type		Singlemode compliant with G657A.1				
Temperatures	Storage	-20 °C to +70 °C				
	Installation	-10 °C to +50 °C				
	Lifetime	-20 °C to +60 °C				
Attenuation at 20 °C (dB/km)		0.40dB/km max at 1310nm to 1625nm				
		0.30dB/km max at 1550nm				
		0.34dB/km max at 1383nm waterpeak				
PMDQ (M= 20, Q=0.01%)		≤0.2 ps / 0.5 (km)				
Macrobending Performance (Individual stripped out fibres)		50mm radius (100 turns) ≤0.1dB at 1550nm and 1625nm ≤0.5dB at 1550nm and 1625nm				

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Mechanical Performance (All optical measurements at 1550nm)			
Test	Test Method	Test Parameters	Product Specification
Tensile Performance	EN 187000 A1/ 501 IEC60 794-12-E1	Load is 1km mass (1W) Duration 10 min	Fibre strain $\leq 0.4\%$ at max. force Attenuation increment $\leq 0.05\text{dB}$ and fibre strain $\leq 0.05\%$ after test. Given tensile performance above, product lifetime loading as per industry best practice.
Tensile Service Load		Maximum W/3 Duration of product lifetime	
Flexing	IEC 60794-1-2-E11A Change @ 1550nm	Diam 40mm x 3 turns 5 cycles at 20 °C	Attenuation $\leq 0.05\text{dB}$ increment after test
Crush I	IEC 60794-1-2-E3 Change @ 1550nm	100 mm plate, 100N, 1 min, 3 tests at different places	$\leq 0.05\text{dB}$ increment after test
Crush II	IEC 60794-1-2-E3 Change @ 1550nm	100 mm plate, 500N, 15 min, 3 tests at different places	No fibres broken

Environmental Performance (All optical measurements at 1310nm and 1550nm)			
Test	Test Method	Test Parameters	Product Specification
Water Soak	IEC 60794-5	1000 hours in water, 18 °C/22 °C	Test after temp cycle $\leq 0.07\text{dB/km}$ change during and after test
Temperature Cycle	IEC 60794-1-2-F1 (3 cycles)	+20 °C, -40 °C, +60 °C	Attenuation to be $\leq 0.5\text{dB/km}$ during test $\leq 0.1\text{dB/km}$ change during and after test
Damp Heat Cycle	IEC 60068-2-38 (10 cycles)	25 °C, 65 °C, 25 °C, 65 °C, 25 °C, -10 °C, 25 °C	Attenuation to be $\leq 0.5\text{dB/km}$ during test $\leq 0.1\text{dB/km}$ change during and after test

Identification	
Sheath Colour	Yellow with black print every 1 metre
Fibre Colours	Blue, orange, green, red, grey, yellow, brown, violet, black, aqua, pink, white
Fillers	Natural (mechanical fibre)

Ordering Information	
Product Description	Part Number
Blown Fibre Unit 2F	FF-SM-BIF-2F
Blown Fibre Unit 4F	FF-SM-BIF-4F
Blown Fibre Unit 6F	FF-SM-BIF-6F
Blown Fibre Unit 8F	FF-SM-BIF-8F
Blown Fibre Unit 12F	FF-SM-BIF-12F