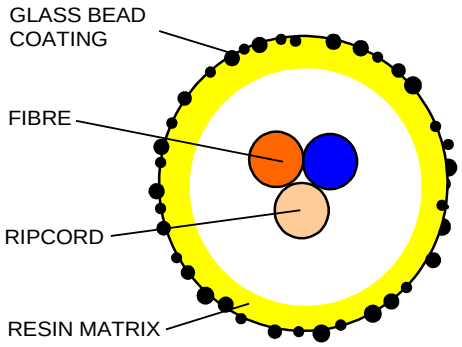
EPFU standard product range details and technical parameters

Utilising its core competencies in the manufacturing and cabling of optical fibre, Prysmian produces optical fibre units EPFU (Enhanced Performance Fibre Units) specifically engineered for Blown Fibre applications. The fibres are contained within a soft inner acrylate layer which cushions the fibres, an outer harder layer which protects the fibre from damage and a low friction layer that assists in improving blowing distance. Sirocco units can be supplied in a range of SingleMode and MultiMode fibre types.

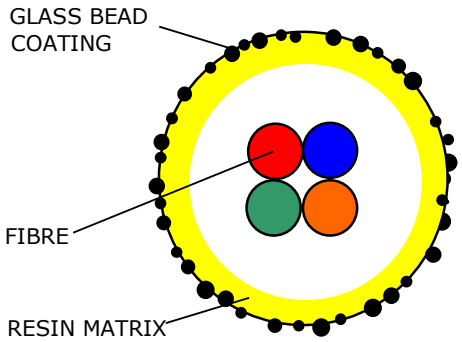
2 Fibre Unit

Diameter	1.0 mm
Weight	0.8 g/m
Break out	2 minutes (typical)
Blow distance	1000m (typical at 10 Bar)
Fibres	Two + ripcord
Fibre colours	Blue and orange
Packaging	Fibre rosette into pan
Max length	6000m
Fibre types	Singlemode: G.652.B, G.652.D, G.657.A1, G.657.A2. Multimode: OM1, OM2, OM3, OM4 and OM5.



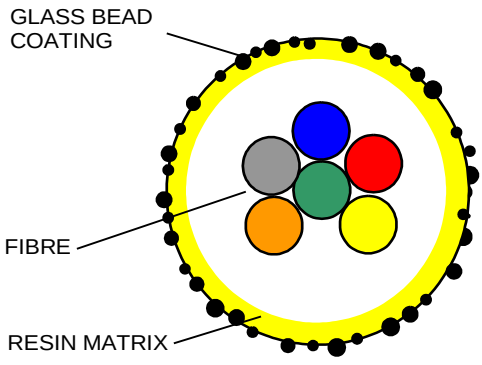
4 Fibre Unit

Diameter	1.0 mm
Weight	0.8 g/m
Break out	3 minutes (typical)
Blow distance	1000m (typical at 10 Bar)
Fibres	Four
Fibre colours	Blue, orange, green and red
Packaging	Fibre rosette into pan
Max length	6000m
Fibre types	Singlemode: G.652.B, G.652.D, G.657.A1, G.657.A2. Multimode: OM1, OM2, OM3, OM4 and OM5.



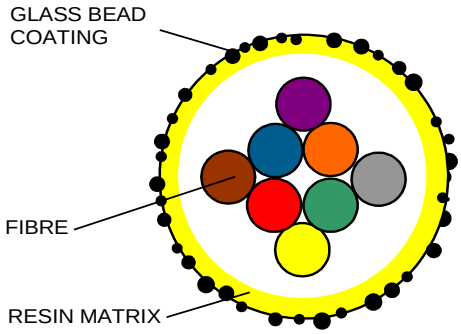
6 Fibre Unit

Diameter	1.1 mm
Weight	0.95 g/m
Break out	4 minutes (typical)
Blow distance	800m (typical at 10 Bar)
Fibres	Six
Fibre colours	Blue, orange, green, red, grey and yellow
Packaging	Fibre rosette into pan
Max length	4000m
Fibre types	Singlemode: G.652.B, G.652.D, G.657.A1, G.657.A2. Multimode: OM1, OM2, OM3, OM4 and OM5.



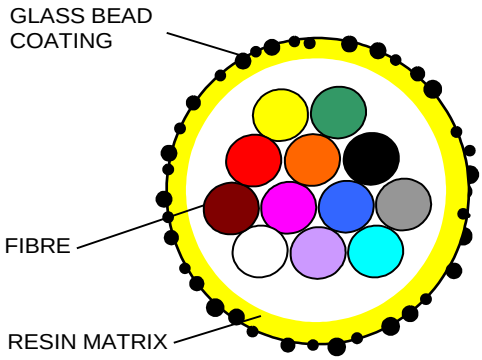
8 Fibre Unit

Diameter	1.4 mm
Weight	1.5 g/m
Break out	5 minutes (typical)
Blow distance	800m (typical at 10 Bar)
Fibres	Eight
Fibre colours	Blue, orange, green, red, grey, yellow, violet and brown
Packaging	Fibre rosette into pan
Max length	6000m
Fibre types	Singlemode: G.652.B, G.652.D, G.657.A1, G.657.A2. Multimode: OM1, OM2, OM3, OM4, OM5.



12 Fibre Unit

Diameter	1.4 mm
Weight	1.7 g/m
Break out	5 minutes (typical)
Blow distance	800m (typical at 10 Bar)
Fibres	Twelve
Fibre colours	Blue, orange, green, red, yellow, grey, violet, brown, black, white, pink and turquoise
Packaging	Fibre rosette into pan
Max length	6000m
Fibre types	Singlemode: G.652.B, G.652.D, G.657.A1, G.657.A2. Multimode: OM1, OM2, OM3, OM4 and OM5.



Fibre data sheets

EPFU SingleMode G.652.B Fibre Specification	Data sheet SE002
EPFU G.652.D Fibre Specification	Data sheet SE003
EPFU 62/125 Multimode (OM1) Fibre Specification	Data sheet SE004
EPFU 50/125 Multimode (OM2) Fibre Specification	Data sheet SE005
EPFU 50/125 Multimode (OM3) Fibre Specification	Data sheet SE006
EPFU 50/125 Multimode (OM4) Fibre Specification	Data sheet SE007
EPFU 50/125 Multimode (OM5) Fibre Specification	to be confirmed
EPFU Bend insensitive G.657.A1 Fibre Specification	Data sheet SE008
EPFU Bend insensitive G.657.A2 Fibre Specification	Data sheet SE009
EPFU Hybrid Product Range Details & Technical Parameters	Data sheet SE010
EPFU Environmentally Friendly Pans	Data sheet SA005

Detailed Test Specification

Mechanical Properties	Test method	Test Standard	Test conditions	Performance
Tensile strength	*IEC 60794-1-2 E1*	*IEC 60794-5-20*	*1W N x (9.81 x mass of 1km)*	*Pass* *Maximum fibre strain ≤ 0.4%* *Residual fibre strain ≤ 0.05%* *Note 1*
Crush	*IEC 60794-1-2 E3*	*IEC 60794-5-20*	*100N for 60 seconds*	*Pass* *Note 1 & 2*
Bend	*IEC 60794-1-2 E11*	*IEC 60794-5-20*	*4 turns, 3 cycles* *3 turns, 5 cycles* *Ø40mm (2f and 4f)* *Ø60mm (6f, 8f & 12f)*	*Pass* *Note 1 and 2* *Singlemode ≤0.15dB/km* *Multimode ≤ 0.30dB/km*
Environmental				
Temperature performance	*IEC 60794-1-2 F1*	*IEC 60794-5-20*	*-15 to +60. 2 cycles* *-40 to +70. 2 cycles*	*Pass* *Note 2* *Singlemode ≤0.15dB/km* *Multimode ≤0.30dB/km*
			-10 to +65. 3 cycles	*Pass* *Note 2,3 and 4*
Cold test	*BS EN 60068-2-1*		*-20 °C* *96 hours*	*Pass* *≤0.5dB/km*
Condensation test	*IEC 60068-2-38*		*-10 °C to +65 °C at 93% RH* *10 cycles* *24 hours dwells*	*Pass* *Note 3 & 4*
Water immersion	*IEC 60793-1-53*	*IEC 60794-5-20*	*30days, room temp*	*Pass* *Singlemode ≤0.05dB/km* *Multimode ≤0.20dB/km*
			20 °C +/- 2 °C *2000 hours*	*Pass* *Note 3 & 4*
Static Bend	*QA5061*		*1000hours, +60°C* *40mm (2f, 4f & 6f)* *60mm (8f & 12F)*	*Pass* *Note 1*
Fibre break out from unit /buffer removal	*QA5058*	*IEC 60794-5-20*	*0 °C, 20 °C, 40 °C* *2m samples*	*2f: ≤2 minutes* *4f: ≤3 minutes* *6f: ≤4 minutes* *8f: ≤5 minutes* *12f: ≤5 minutes*

Note 1 No significant damage.
Note 2 No change in attenuation after test
Note 3 Pass for Singlemode = +/- 0.07dB/km at 1310 nm and 1550 nm
Note 4 Pass for Multimode = +/- 0.25 dB/km at 850 nm and 1300 nm

Pan dimensions and weights

Pan codes
Shallow (S)
Environmentally Friendly Deep (D)
Environmentally Friendly Double Deep (DD)

Dimensions (mm)
L = 615 x W = 530 x H = 155
L = 615 x W = 530 x H = 251
L = 513 x W = 513 x H = 390

Length	2 Fibre		4 Fibre		6 Fibre		8 Fibre		12 Fibre	
	Pan	Kg	Pan	Kg	Pan	Kg	Pan	Kg	Pan	Kg
500m	S	3.0	S	3.1	S	3.2	S	3.3	S	3.4
1000m	S	3.3	S	3.3	S	3.5	S	4.0	S	4.2
2000m	S	4.1	S	4.1	S	4.5	D	6.4	D	6.8
3000m	D	6.1	D	6.1	D	6.2	D	7.9	D	8.5
4000m	D	6.9	D	6.9	D	7.1	D	9.4	DD	11.7
6000m	D	8.5	D	8.5	N/A	N/A	DD	11.7	DD	12.5