

## EPFU Range and Technical Parameters

Part Numbers: See following page

Prysmian produces optical fibre units (EPFU – Enhanced Performance Fibre Units) specifically engineered for blown fibre applications. The optical fibres are initially encapsulated in a soft inner acrylate layer which cushions the fibres, followed by an outer harder layer which protects the fibres from external damage. Finally, there is a low-friction layer that helps to maximise blowing distance (typically in excess of 1000 metres).

The Sirocco units can be supplied in whatever type of fibre is required (currently available in singlemode; low waterpeak {MagniLight}; multimode 62.5/125 and 50/125 {standard, OM3 and enhanced OM3}). Colour coding indicates the type of fibre (singlemode yellow, 50/125 turquoise/blue and 62.5/125 magenta/red) except for the 12-fibre which, with its alternative low friction coating, is coloured grey.

### Technical Details

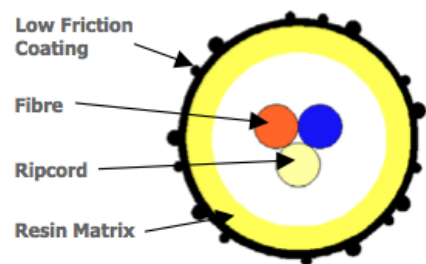
Diameter	1.0mm
Weight	0.8 g/m
Breakout	2 minutes (typical)
Blowing distance	1000m (typical)
Fibres	two + ripcord
Fibre colours	blue, orange
Packaging	Fibre rosette into pan

Diameter	1.0mm
Weight	0.8 g/m
Breakout	3 minutes (typical)
Blowing distance	1000m (typical)
Fibres	four
Fibre colours	blue, orange, green, red
Packaging	Fibre rosette into pan

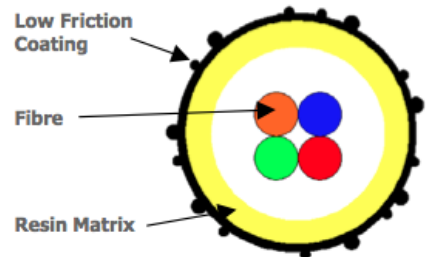
Diameter	1.4mm
Weight	1.5 g/m
Breakout	5 minutes (typical)
Blowing distance	1000m (typical)
Fibres	eight
Fibre colours	blue, orange, green, red, violet, grey, yellow, brown
Packaging	Fibre rosette into pan

Diameter	1.3mm
Weight	1.64 g/m
Breakout	8 minutes (typical)
Blowing distance	1000m (typical)
Fibres	twelve
Fibre colours	blue, orange, green, red, violet, grey, yellow, brown, black, white, pink, turquoise
Packaging	Fibre rosette into pan

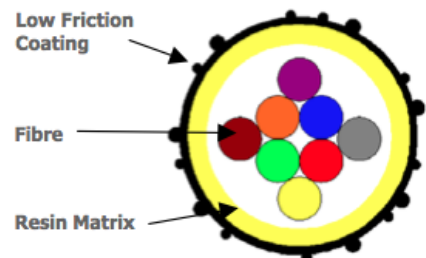
**2 Fibre Unit**



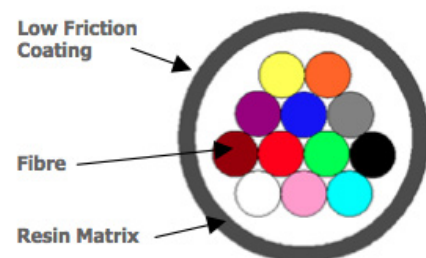
**4 Fibre Unit**



**8 Fibre Unit**



**12 Fibre Unit**



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### Part Numbers

Fibre units of 2, 4, 8 and 12 are generally available in a range of standard lengths up to 6000 metres. The EPFU is supplied rosetted into a pan (see below for dimensions). For part numbers not shown, please contact our customer care or sales office.

### 2 Fibre Unit

Pan Length	Singlemode	Multimode 62.5	Multimode 50	OM3
500m	EPFU_SM2F_500	EPFU_MM62_2F_500	EPFU_MM50_2F_500	EPFU_OM3_2F_500
1000m	EPFU_SM2F_1000	EPFU_MM62_2F_1000	EPFU_MM50_2F_1000	EPFU_OM3_2F_1000
2000m	EPFU_SM2F_2000	EPFU_MM62_2F_2000	EPFU_MM50_2F_2000	EPFU_OM3_2F_2000
4000m	EPFU_SM2F_4000	EPFU_MM62_2F_4000	EPFU_MM50_2F_4000	EPFU_OM3_2F_4000
6000m	EPFU_SM2F_5000	EPFU_MM62_2F_6000	EPFU_MM50_2F_6000	EPFU_OM3_2F_6000

### 4 Fibre Unit

Pan Length	Singlemode	Multimode 62.5	Multimode 50	OM3
500m	EPFU_SM4F_500	EPFU_MM62_FD_500	EPFU_MM50_4F_500	EPFU_OM3_4F_500
1000m	EPFU_SM4F_1000	EPFU_MM62_4F_1000	EPFU_MM50_4F_1000	EPFU_OM3_4F_1000
2000m	EPFU_SM4F_2000	EPFU_MM62_4F_2000	EPFU_MM50_4F_2000	EPFU_OM3_4F_2000
4000m	EPFU_SM4F_4000	EPFU_MM62_4F_4000	EPFU_MM50_4F_4000	EPFU_OM3_4F_4000
6000m	EPFU_SM4F_5000	EPFU_MM62_4F_6000	EPFU_MM50_4F_6000	EPFU_OM3_4F_6000

### 8 Fibre Unit

Pan Length	Singlemode	Multimode 62.5	Multimode 50	OM3
500m	EPFU_SM2F_500	EPFU_MM62_2F_500	EPFU_MM50_2F_500	EPFU_OM3_2F_500
1000m	EPFU_SM2F_1000	EPFU_MM62_2F_1000	EPFU_MM50_2F_1000	EPFU_OM3_2F_1000
2000m	EPFU_SM2F_2000	EPFU_MM62_2F_2000	EPFU_MM50_2F_2000	EPFU_OM3_2F_2000
4000m	EPFU_SM2F_4000	EPFU_MM62_2F_4000	EPFU_MM50_2F_4000	EPFU_OM3_2F_4000
6000m	EPFU_SM2F_5000	EPFU_MM62_2F_6000	EPFU_MM50_2F_6000	EPFU_OM3_2F_6000

### 12 Fibre Unit

Pan Length	Singlemode	Multimode 62.5	Multimode 50	OM3
500m	EPFU_SM12F_500	EPFU_MM62_12F_500	EPFU_MM50_12F_500	EPFU_OM3_12F_500
1000m	EPFU_SM12F_1000	EPFU_MM62_12F_1000	EPFU_MM50_12F_1000	EPFU_OM3_12F_1000
2000m	EPFU_SM12F_2000	EPFU_MM62_12F_2000	EPFU_MM50_12F_2000	EPFU_OM3_12F_2000
4000m	EPFU_SM12F_4000	EPFU_MM62_12F_4000	EPFU_MM50_12F_4000	EPFU_OM3_12F_4000
6000m	EPFU_SM12F_5000	EPFU_MM62_12F_6000	EPFU_MM50_12F_6000	EPFU_OM3_12F_6000

### Pan Dimensions / Weights

Pan Length	2-fibre		4-fibre		8-fibre		12-fibre		Pan Code	Dimensions (mm)
	Pan	Kg	Pan	Kg	Pan	Kg	Pan	Kg		
500m	S	2.9	S	2.9	S	3.3	S	3.3	Shallow (S)	(l)615 x (w)530 x (h)155
1000m	S	3.3	S	3.3	S	4.0	S	4.0	Deep (D)	(l)615 x (w)530 x (h)251
2000m	S	4.1	S	4.1	S	5.5	D	7.0	Double Deep (DD)	(l)615 x (w)530 x (h)392
4000m	D	6.9	D	6.9	D	9.7	D	9.8		
6000m	D	8.5	D	8.5	DD	15.0	DD	15.8		

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## EPFU Range and Technical Parameters

### Detailed Test Specification

Properties Mechanical	International Standard	Test Conditions	Performance
Tensile strength	IEC 60794-1-2-E1	1W N (9.81x mass of 1km)	Pass Maximum fibre strain = 0.4% Residual fibre strain = 0.05% Note 1, Note 2
Crush	IEC 60794-1-2-E3	100 N 60 seconds	Pass Note 1, Note 2
Bend	IEC 60794-1-2-E11	40 mm (2 & 4f) 60 mm (8f)	Pass Note 1, Note 2
Aged bend	BT CW1500 pt 4	40 mm (2 & 4f) 60 mm (8f) 60°C, 1000 hrs	Pass Note 1

Environmental	International Standard	Test Conditions	Performance
Temperature	IEC 60794-1-2-F1	-10°C to + 60°C 3 cycles	Pass Note 3, Note 4
Cold test	BS EN 60068-2-1	-20°C 96 hrs	Pass Note 3, Note 4
Condensation test	IEC 60068-2-38	-10°C + 65°C 93% RH, 24hrs x 10	Pass Note 3, Note 4
Water immersion	BT CW1500 pt 4	20°C ± 5°C 2000 hrs	Pass Note 3, Note 4
Fibre breakout from unit	BT CW1500 pt 4	0°C, 20°C, 40°C 2m	Under 3 minutes (2 & 4f) Undr 5 minutes (8f)

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