

## Low Waterpeak Singlemode Fibre to ITU-T Recommendation G.652 C/D

### Features and Benefits

The following details summarise the main optical, geometrical and physical characteristics of MagniLight low water peak fibres as used in Sirocco Enhanced Performance Fibre Units (EPFU), compliant with ITU-T Rec. G.652 C / D.

Fibres are manufactured from high grade silica, doped as necessary to achieve the required light guiding properties, designed with a matched-cladding, step-index profile. The fibre coating is a dual layer structure of ultra-violet cured acrylate resin. The lower modulus inner layer being optimised for both adhesion to the fibre surface and mechanical stripping using the appropriate stripping tools. The outer layer is optimised for abrasion resistance and fibre processing properties.

Optical Properties		Value	Units
Attenuation Coefficient (2F,4F,8F,12F)	1310 nm	≤ 0.38	dB/km maximum
	1550 nm	≤ 0.26	dB/km maximum
Attenuation at 1383 nm (Fibre) <sup>1</sup>		≤ 0.35	dB/km
Mode Field Diameter	Petermann II	9.2 ± 0.4	µm
Cut-off Wavelength (cabled)		≤ 1260	nm
Dispersion	1285 – 1330 nm	≤ 3.5	ps/nm.km
	1550 nm	≤ 18.0	ps/nm.km
Zero Dispersion Wavelength	λ <sub>0</sub>	1302 – 1322	nm
	Slope	≤ 0.089	ps/nm <sup>2</sup> .km
PMDq (IEC concatenated value)		≤ 0.08	ps / √ km

Geometrical Properties		Value	Units
Reference Surface Diameter		125 ± 0.7	µm
Core to Cladding Concentricity Error		≤ 0.84	µm maximum
Reference Surface Non-Circularity		≤ 1	%
Coating Diameter		235 - 255	µm

Physical Properties		Value	Units
Proof Test Level		≥ 1	%

<sup>1</sup> As per ITU-T Recommendation G.652: "The sampled attenuation average at this wavelength shall be less than or equal to the value specified at 1310 nm after hydrogen ageing according to IEC 60793-2-50 regarding the B1.3 fibre category"

Prysmian Telecom Cables & Systems UK Ltd, Chickenhall Lane, Bishopstoke, Hants SO50 6YU, UK

Technical Enquiries +44 (0) 2380 608760 Fax Number +44 (0) 2380 608769

© Prysmian Telecom Cables & Systems UK Ltd. All Rights Reserved. Issue 01, July 2006.

Sirocco is a registered trade mark of Prysmian Telecom Cables & Systems UK Ltd. The information contained within this document must not be copied, reprinted or reproduced in any form, either wholly or in part, without the written consent of Prysmian. The information is believed to be correct at the time of issue. Prysmian reserves the right to alter specifications to take account of technical advances and market changes. The products listed in this data sheet are sold under licence from British Telecommunications PLC and are protected by the following patents: EP 0108590, EP 0300647, GB 2205960, EP 0490968, US 4691896, GB 2210472, US 5789701, EP 0287225, EP 0345043, EP 0253636, EP 0363131, EP 0363188, WO 98/12588, EP 0389303, EP 0296860, EP 0157610, EP 0432171, EP 0521710.

Issue 01, July 2006  
Ref: SE003-01