

EPFU MAGNILIGHT (G.652 C / D) FIBRE SPECIFICATION

The following details summarise the main Optical, Geometrical and Physical Characteristics of fibres, compliant to ITU-T Rec. G.652.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.

ATTENUATION REQUIREMENTS

Wavelength	Cabled Attenuation	Units
1310 nm	0.38 max	dB/km
1550 nm	0.26 max	dB/km

OTHER REQUIREMENTS

Parameter	Units	Generic Value for all grades
Attenuation at 1383 nm (Fibre) ¹	dB/km	≤0.35
Cut-Off Wavelength (cables)	nm	≤1260
PMD (Link design value)	ps /√ km	≤ 0.08
Core Concentricity	μm	≤ 0.84
Mode Field Diameter @ 1310nm	μm	8.8 – 9.6
Clad Diameter	μm	125 +/- 0.7
Dispersion at 1285 – 1330nm	ps/(nm.km)	≤3.5
Dispersion at 1550nm	ps/(nm.km)	≤18.0
Zero Dispersion Wavelength	nm	1302 – 1322
Dispersion Slope	ps/(nm ² .km)	≤0.089
Cladding non-circularity	%	≤1
Coating Diameter (Self Coloured Neon)	μm	245 +/-10
Coating concentricity	μm	≤12.0
Proof Test	%	≥1

¹ 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"