

**SPECIFICATION FOR LOW WATER PEAK SINGLEMODE OPTICAL FIBRE**  
**ITU-T RECOMMENDATION G.652.D, and IEC 60793-2-50 Type B1.3, used in OS1/OS2 cables**

**OPTICAL PROPERTIES**

Fibre selected to meet cabled attenuation of	@ 1310 nm @ 1383 nm @ 1550 nm	≤ 0.38 dB/km ≤ 0.38 dB/km ≤ 0.25 dB/km
Attenuation Uniformity	Point or step defect	≤ 0.1 dB
	Extended variations	≤ 0.1 dB
Mode Field Diameter	@ 1310nm	9.2 ± 0.4 μm
Cut-Off Wavelength	λ <sub>c</sub> (fibre)	1190 - 1320 nm
	λ <sub>cc</sub> (cable)	≤ 1260 nm
Chromatic Dispersion	1285 – 1330 nm	≤ 3 ps/nm.km
	1550 nm	≤ 18.0 ps/nm.km
Zero Dispersion Wavelength		1302 - 1322 nm
Slope at Zero Dispersion Wavelength		≤ 0.090 ps/nm <sup>2</sup> .km
Polarisation Mode Dispersion		
Uncabled fibre – Individual		≤ 0.1 ps/√km
Link Design Value PMDq		≤ 0.2 ps/√km
Nominal Refractive Index	1310/1550 nm	1.470

**MACROBENDING PROPERTIES**

100 turns around 60mm diameter	@1625 nm	≤ 0.05 dB/km
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**GEOMETRICAL PROPERTIES**

Cladding Diameter		125 ± 0.7 μm
Glass Concentricity Error		≤ 0.5 μm
Non-Circularity	Core	≤ 6 %
	Cladding	≤ 0.7 %
Coating Diameter*		242 ± 7 μm
Coating Concentricity Error		≤ 12.0 μm
Coating Non-Circularity		≤ 5 %

**MECHANICAL PROPERTIES**

Proof Test Level		≥ 0.69 GPa / ≥ 1.0 %
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- \* Optical fibre coating designed for long life time and low microbending sensitivity