

# Singlemode Fibre, BT Specification CW1505/12 CAT B (Internal)

## Features and Benefits

The following details summarise the main Optical, Geometrical and Physical Characteristics of fibres to British Telecom specification CW1505/12 Cat B & compliant to ITU-T Rec. G.652. 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
	1290 – 1340 nm	≤ 0.40	dB/km maximum
	1550 nm	≤ 0.26	dB/km maximum
	1480 – 1580 nm	≤ 0.30	dB/km maximum
Mode Field Diameter	Petermann II	9.2 ± 0.4	µm
Cut-off Wavelength (Cabled)	$\lambda_{cc}$	200	nm
Dispersion	1290 – 1340 nm	≤ 3.0	ps/nm.km
	1260 – 1360 nm	≤ 7.0	ps/nm.km
	1480 – 1580 nm	≤ 20.0	ps/nm.km
Zero Dispersion Wavelength	$\lambda_0$	1300 – 1324	nm
	Slope	≤ 0.092	ps/nm <sup>2</sup> .km
PMDq (IEC concatenated value)		≤ 0.10	ps /√ km

Geometrical Properties		Value	Units
Reference Surface Diameter		125 ± 1.0	µm
Core to Cladding Concentricity Error		≤ 0.7	µm maximum
Reference Surface Non-Circularity		≤ 1.5	%
Coating Diameter (Uncoloured)		235 to 255	µm

Physical Properties		Value	Units
Proof Test Level		≥ 1	%

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