

# 50/125 Multimode Fibre to ITU-T recommendation G.651 and IEC 60793-2-10 A1a

## Features and Benefits

The following details summarise the main Optical, Geometrical and Physical Characteristics of fibres for the CATV/industrial market, compliant to ITU -T Rec. G.651 and IEC 60793-2-10 A1a. Fibres are manufactured from high grade silica, doped as necessary to achieve the required light guiding properties, designed with a matched-cladding, graded-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)	850 nm	$\leq 3.2$	dB/km maximum
	1300 nm	$\leq 1.2$	dB/km maximum
Attenuation Coefficient (4F,8F,12F)	850 nm	$\leq 2.6$	dB/km maximum
	1300 nm	$\leq 0.8$	dB/km maximum
Numerical Aperture		$0.20 \pm 0.015$	-
Normalised Bandwidth	850 nm	500	MHz.km minimum
	1300 nm	800	MHz.km minimum
Dispersion	850 nm	$\leq 120$	ps/nm.km
	1300 nm	$\leq 6$	ps/nm.km

Geometrical Properties		Value	Units
Core Diameter		$50 \pm 2.5$	$\mu\text{m}$
Reference Surface Diameter		$125 \pm 1.0$	$\mu\text{m}$
Core to Cladding Concentricity Error		$\leq 1.5$	$\mu\text{m}$
Reference Surface Non-Circularity		$\leq 1.0$	%
Coating Diameter (Coloured)		235 to 255	$\mu\text{m}$

Physical Properties		Value	Units
Proof Test Level		$\geq 1$	%

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