



TECHNICAL PRODUCT INFORMATION

Product characteristics - optical fibres

21-06-2023

Fibre specification G.657.A1 - 200µm

Fibre	
Type of fibre	Hydrogen passivated, dispersion unshifted, matched cladding, bending loss insensitive single mode fibre 9/125 µm Full compatible with G.652.D fibre Reduced coating diameter Optical and geometrical properties exceed ITU-recommendations G.652.D and G.657.A1
Standard	IEC-60793-2-50, B-657.A1
Standard	ITU-T G.657.A1

Characteristics

Parameter	Properties	Unit
Mode field diameter: 1310 nm	9.0 ± 0.3	µm
Mode field diameter: 1550 nm	10.2 ± 0.4	µm
Core non-circularity	max.	6 %
Core/cladding concentricity error	max.	0.5 µm
Cladding diameter		125.0 ± 0.5 µm
Cladding non-circularity	max.	0.7 %
Coating diameter		198 ± 6 µm
Coating/cladding concentricity error	max.	8 µm
Temperature sensitivity: -60 to +85 °C	max.	0.05 dB/km
Bending sensitivity - 100 turns around Ø50 mm - 1550 nm	max.	0.05 dB
Bending sensitivity - 100 turns around Ø60 mm - 1625 nm	max.	0.05 dB
Bending sensitivity - 10 turns around Ø30 mm - 1550 nm	max.	0.25 dB
Bending sensitivity - 10 turns around Ø30 mm - 1625 nm	max.	1.0 dB
Bending sensitivity - 1 turn around Ø20 mm - 1550 nm	max.	0.75 dB
Bending sensitivity - 1 turn around Ø20 mm - 1625 nm	max.	1.5 dB
Proof test level	min.	0.70 GPa
Fibre curl	min.	4 m
Cable cut-off wavelength	max.	1260 nm
Zero-dispersion wavelength		1300 - 1324 nm
Zero-dispersion slope	max.	0.090 ps/nm²·km
Chromatic dispersion: 1285 - 1330 nm	max.	3.2 ps/nm·km
Chromatic dispersion: 1550 nm	max.	17 ps/nm·km
Chromatic dispersion: 1625 nm	max.	21 ps/nm·km
Polarisation mode dispersion: max. individual fibre	max.	0.1 ps/√km
PMD _Q	max.	0.04 ps/√km
Max. attenuation at 1383 nm (α_{1383}) [note a]	< max.	α_{1310} -
Effective group core refractive index: 1310 nm		1.4671 -
Effective group core refractive index: 1550 nm		1.4675 -
Effective group core refractive index: 1625 nm		1.4680 -

[note a: after hydrogen ageing]

