



TECHNICAL PRODUCT INFORMATION

Product characteristics - optical fibres

21-06-2023

Fibre specification G.657.A2 - 200µm

Fibre	
Type of fibre	Hydrogen passivated, dispersion unshifted, groove assisted, 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.A2
Standard	ITU-T G.657.A2

Characteristics

Parameter		Properties	Unit
Mode field diameter: 1310 nm		8.6 ± 0.4	µm
Mode field diameter: 1550 nm		9.6 ± 0.5	µm
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.	0.03	dB
Bending sensitivity - 10 turns around Ø30 mm - 1625 nm	max.	0.1	dB
Bending sensitivity - 1 turn around Ø20 mm - 1550 nm	max.	0.1	dB
Bending sensitivity - 1 turn around Ø20 mm - 1625 nm	max.	0.2	dB
Bending sensitivity - 1 turn around Ø15 mm - 1550 nm	max.	0.5	dB
Bending sensitivity - 1 turn around Ø15 mm - 1625 nm	max.	1.0	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/nm ² ·km
Chromatic dispersion: 1550 nm	max.	18	ps/nm·km
Chromatic dispersion: 1625 nm	max.	23	ps/nm·km
Polarisation mode dispersion: max. individual fibre	max.	0.1	ps/nm·km
PMDQ	max.	0.04	ps/√km
Max. attenuation at 1383 nm (α ₁₃₈₃) [note a]	max.	α ₁₃₁₀	-
Effective group core refractive index: 1310 nm		1.4676	-
Effective group core refractive index: 1550 nm		1.4683	-
Effective group core refractive index: 1625 nm		1.4685	-

[note a: after hydrogen ageing]