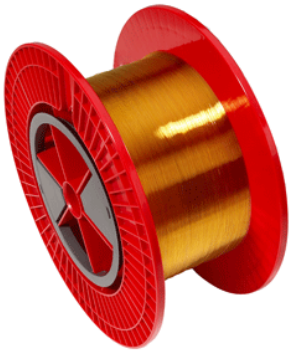
OPTICAL FIBER. SINGLE MODE. BEND OPTIMIZED. G657A

ROHS
conforms

STANDARDS

ITU-T G.652D recommandation
ITU-T G.657A recommandation
IEC-EN 60793-2-50 Cat. B.6.a.

DESCRIPTION AND APPLICATION



- Single Mode step index Optical fiber. The cladding is composed by SiO_2 and the nucleus by SiO_2 + GeO_2. The coating is composed of UV-cured acrylate.
- Offers Low Water Peak performance (LWP), that provides optimum performance in both the 1310 nm (2nd window) and 1550 nm (3rd window) wavelength with a low dispersion in the 1310 nm window, and bend performance for FTTH applications.
- Fully compatible with all conventional single-mode fibers.
- It is a full-spectrum fiber designed for optical transmission systems operating over the entire wavelength range from 1260 nm to 1625 nm.

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Certified Company **ISO 9001** - **ISO 14001**

CABLESCOM ZARAGOZA

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OPTICAL CHARACTERISTICS

PARAMETER	VALUE	UNITS	TEST METHOD
Typ./Max. Individual fibre Attenuation at 1310 nm (*)	0,34 / 0,35	dB/km	UNE-EN 188000-303 IEC 60793-1-40
Typ./Max. Individual fibre Attenuation at 1383 nm (*)	0,28 / 0,31	dB/km	
Typ./Max. Individual fibre Attenuation at 1490 nm (*)	0,21 / 0,24	dB/km	
Typ./Max. Individual fibre Attenuation at 1550 nm (*)	0,19 / 0,21	dB/km	
Typ./Max. Individual fibre Attenuation at 1625 nm (*)	0,20 / 0,24	dB/km	
Att. Uniformity (Point discontinuities at 1310 or 1550 nm)	< 0,05	dB	
Zero Dispersion Wavelength	$1302 < \lambda_0 < 1322$	nm	UNE-EN 188000-309 IEC 60793-1-42
Dispersion Slope at λ_0 (S_0)	≤ 0,092	ps/nm²·km	
Polarization Mode Dispersion (PMD) (*)	≤ 0,1	ps/√km	IEC 60793-1-48
Link Design Value. (PMD_Q) (**)	≤ 0,06	ps/√km	
Cutoff Wavelength (cabled fiber)	$\lambda_{cc} < 1260$	nm	UNE-EN 188000-313 IEC 60793-1-44

(*) This parameter is subject to change once the fiber is cabled.

MACROBEND ATTENUATION

PARAMETER	VALUE	UNITS	TEST METHOD
100 turns on a 25,0 mm. mandrel at 1550nm (*)	≤ 0,01	dB	
10 turns on a 15,0 mm. mandrel at 1550nm (*)	≤ 0,05	dB	
1 turn on a 10,0 mm. mandrel at 1550nm (*)	≤ 0,2	dB	
100 turns on a 25,0 mm. mandrel at 1625nm (*)	≤ 0,5	dB	
10 turns on a 15,0 mm. mandrel at 1625nm (*)	≤ 0,2	dB	
1 turn on a 10,0 mm. mandrel at 1625nm (*)	≤ 0,5	dB	

(*) This parameter is subject to change once the fiber is cabled.

GEOMETRICAL PROPERTIES

PARAMETER	VALUE	UNITS	TEST METHOD
Mode Field Diameter at 1310 nm	8,9 ± 0,4	µm	UNE-EN 188000-315 IEC 60793-1-45
Mode Field Diameter at 1550 nm	10,0 ± 0,5	µm	
Cladding Diameter	125 ± 0,7	µm	IEC 60793-1-20
Cladding Non-Circularity	< 1	%	
Core-Cladding Concentricity Error	< 0,5	µm	
Coating Diameter (uncoloured)	240 ± 5	µm	IEC 60793-1-21
Coating-Cladding Concentricity Error	≤ 12	µm	

OTHER PROPERTIES

PARAMETER	VALUE	UNITS	TEST METHOD
Tensile Strength ("Proof test")	≥1% (100kpsi / 0,7GPa)	%	IEC 60793-1-30
Effective group index of refraction at 1310 nm	1,467		
Effective group index of refraction at 1550 nm	1,468		
Coating strippability (peak value)	1,3 ≤ Fp ≤ 8,9	N	IEC 60793-1-32

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