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## SPECIFICATION FOR SINGLE MODE FIBER (G.657.A1)

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Single mode glass fiber for 1 310 nm, 1 550 and 1625 nm. Primary coating made of acrylate.

### I. FIBER GEOMETRY

Coating diameter, coloured	250 ±10	μm
Cladding diameter	125.0 ± 0.7	μm
Cladding non-circularity	≤1.0	%
Core concentricity error	≤0.5	μm

### II. MECHANICAL PROPERTIES

Minimum bending radius	15	mm
Proof stress	1	%
Proof stress time	1	s
Fiber curl radius	≥4	m

### III. TRANSMISSION PROPERTIES – for fiber in cable

Attenuation at 1310 nm	mean 0.37	dB/km
	max 0.40	dB/km
Attenuation at 1383 nm*	mean 0.37	dB/km
	max 0.40	dB/km
Attenuation at 1 550 nm	mean 0.22	dB/km
	max 0.28	dB/km
Attenuation at 1 625 nm	mean 0.30	dB/km
	max 0.40	dB/km
Cable cut-off wavelength	≤1 260	nm
Mode field diameter	8.8-9.2 ±0.4	μm
Zero-dispersion wavelength	1 300-1 324	nm
Zero-dispersion slope	≤0.092	ps/nm/nm/km
Chromatic dispersion at 1 550 nm	≤18	ps/nm/km
Chromatic dispersion at 1 285 - 1 330 nm	≤3.5	ps/nm/km
PMD (link design value)	≤0.2	ps/√km

### IV. REFERENCES

IEC 60793-2-50 class B6\_a1  
 Generic specification: Optical Fibres ITU-T G.657.A1

\* After hydrogen ageing according to IEC60793-2-50