Nexans

SPECIFICATION FOR SINGLE MODE FIBER (G.652.D) USED IN TUBES

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	≤0.7	%
Core concentricity error	≤0.4	µm

II. MECHANICAL PROPERTIES

Minimum bending radius	30	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		8.8-9.6	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 B1.3
Generic specification: Optical Fibres ITU-T G.652.D

* After hydrogen ageing according to IEC60793-2-50