

Table 7-1 – ITU-T G.657 category A attributes

Fibre attributes						
Attribute	Detail	Value				
Mode field diameter	Wavelength	1310 nm				
	Range of nominal values	8.6-9.5 μm				
	Tolerance	$\pm 0.4 \mu\text{m}$				
Cladding diameter	Nominal	125.0 μm				
	Tolerance	$\pm 0.7 \mu\text{m}$				
Core concentricity error	Maximum	0.5 μm				
Cladding non-circularity	Maximum	1.0%				
Cable cut-off wavelength	Maximum	1260 nm				
Uncabled fibre macrobending loss (Notes 1, 2)		ITU-T G.657.A1		ITU-T G.657.A2		
	Radius (mm)	15	10	15	10	7.5
	Number of turns	10	1	10	1	1
	Max. at 1550 nm (dB)	0.25	0.75	0.03	0.1	0.5
	Max. at 1625 nm (dB)	1.0	1.5	0.1	0.2	1.0
Proof stress	Minimum	0.69 GPa				
Chromatic dispersion coefficient	$\lambda_{0\text{min}}$	1300 nm				
	$\lambda_{0\text{max}}$	1324 nm				
	$S_{0\text{max}}$	0.092 ps/nm ² × km				
Cable attributes						
Attenuation coefficient	Maximum from 1310 nm to 1625 nm (Note 3)	0.4 dB/km				
	Maximum at 1383 nm ± 3 nm (Note 4)	0.4 dB/km				
	Maximum at 1550 nm	0.3 dB/km				
PMD coefficient	M	20 cables				
	Q	0.01%				
	Maximum PMD _Q	0.20 ps/ $\sqrt{\text{km}}$				
NOTE 1 – ITU-T G.652 fibres deployed at a radius of 15 mm generally can have macrobending losses of several dB per 10 turns at 1625 nm.						
NOTE 2 – The macrobending loss can be evaluated using a mandrel winding method (method A of [IEC 60793-1-47]), substituting the bending radius and the number of turns specified in this table.						
NOTE 3 – This wavelength region can be extended to 1260 nm by adding 0.07 dB/km induced Rayleigh scattering loss to the attenuation value at 1310 nm. In this case, the cable cut-off wavelength should not exceed 1250 nm.						
NOTE 4 – The sampled attenuation average at this wavelength shall be less than or equal to the maximum value specified for the range, 1310 nm to 1625 nm, after hydrogen ageing according to [b-IEC 60793-2-50] regarding the B1.3 fibre category.						