中国华能
CHINA HUANENG

Huaneng Taian Optic-Electric Technology Co.,Ltd Product Introduction

Product Name： G.657.B3 Bend-Insensitive Single-Mode Optical Fiber for Access Networks

1、Product Description:

HuaNeng Taian Optic-Electric G.657.B3 bending insensitive single-mode fiber for access network has all the characteristics of G.652.D low water peak dispersion unshifted Single-mode fiber， and has more excellent bending performance. It is suitable for entire wavelength window from 1260 nm to 1625 nm.

2、Product Features:

(1) The index is better than the ITU-T recommended G.657.B3 and IEC60973－2－50 B6 class optical fiber technical specifications.

(2) The bending performance is even more excellent than that of G.657.A2, and it is used in occasions with extremely high requirements for the bending radius. .

(3) Completely compatible with the existing G.652.D fiber.

(4) Excellent PMD coefficient to meet the long relay distance and high rate of the transmission system.

3、 Product Application:

(1) Can be used for various structures of optical cable. Especially suitable for tight buffer drop cable, butterfly drop cable, and the first choice of FTTH.

(2) It is used in optical cables with extremely small bending radius requirements.

4、Product Standards:

Optical Performance			
Performance	Conditions	Data	Units
Attenuation	1310 nm	≤0.35	[dB/km]
	1383nm	≤0.34	[dB/km]
	1550 nm	≤0.21	[dB/km]
	1625 nm	≤0.24	[dB/km]
Dispersion coefficient	1285-1339nm	≥-3.5 ≤3.5	[ps/(nm·km)]
	1271-1360nm	≥-5.3 ≤5.3	[ps/(nm·km)]
	1550 nm	≤18	[ps/(nm·km)]
	1625 nm	≤22	[ps/(nm·km)]
Zero dispersion wavelength		1250-1350	[nm]
Zero dispersion slope		≤0.11	[ps/(nm2·km)]
Polarization mode dispersion	Maximum individual fiber	≤0.2	[ps/ √ km]
	Link design value (M=20,Q=0.01%)	≤0.1	[ps/ √ km]
	Typical value	0.04	[ps/ √ km]
Cut-off wavelength	Cable cut-off wavelength	≤1260	[nm]
Mode-field diameter	1310 nm	8.6±0.4	[μm]
Effective group index of refraction	1310 nm	1.4672	
	1550 nm	1.4683	
Point discontinuities	1310 nm	≤0.05	[dB]
	1550 nm	≤0.05	[dB]
Geometrical Performance			
Cladding diameter		125.0±0.7	[μm]
Cladding non-circularity		≤1.0	[%]
Secondary Coating diameter		245±10	[μm]
Secondary Coating eccentricity		≤12.0	[μm]
Coating non-circularity		≤6.0	[%]
Core/Cladding eccentricity		≤0.5	[μm]
Fiber curl radius		≥4	[m]
Delivery length		2.1-50.4	[km/reel]
Environmental Behavior			
Temperature dependence induced attenuation	-60℃ to +85℃	≤0.03	[dB/km]

Water immersion dependence induced attenuation	23℃, for 30 days	≤0.03	[dB/km]
Damp heat dependence induced attenuation	85℃，85% relative humidity, for 30 days	≤0.03	[dB/km]
Dry heat aging induced attenuation	85℃，for 30 days	≤0.03	[dB/km]
Mechanical Behavior and Macro-bending Attenuation			
Proof test	Off-line	≥9.2	[N]
		≥1.0	[%]
		≥100	[kpsi]
Macro-bending induced loss	1 turn 10 mm radius，1550 nm	≤0.03	[dB]
	1 turn 10 mm radius，1625 nm	≤0.1	[dB]
	1 turn 7.5 mm radius，1550 nm	≤0.08	[dB]
	1 turn 7.5 mm radius，1625 nm	≤0.25	[dB]
	1 turn 5 mm radius，1550 nm	≤0.15	[dB]
	1 turn 5 mm radius，1625 nm	≤0.45	[dB]
Coating strip force	Typical average value	1.0-5.0	[N]
	Peak value	1.3-8.9	[N]
Dynamic fatigue parameter		≥20	