

Description

EasyBand® bending insensitive single mode fibre encompasses all the features of FullBand® fibre and provides good resistance to macro-bending. It has low macro-bending sensitivity and low water-peak levels. It is comprehensively optimised for use in O-E-S-C-L band (1260-1625nm).

Offering good resistance to additional losses due to low macro-bending in the 1625nm wavelength region. This not only supports L-band applications but also allows for easy installation without excessive care when storing the fibre, for example, in splicing cassettes. For cable use inside buildings, the fibre supports installation with small cable bending radii and compact organisers.

Features & Benefits

- Low attenuation satisfying operation demand in O-E-S-C-L band
- Good bending loss resistance at short radius bends
- Low bending loss for highly demanding cable designs including ribbons
- Low PMD satisfying high bit-rate and long distance transmission requirements
- Accurate geometrical parameters that insure low splicing loss and high splicing efficiency
- Complies with or exceeds ITU-T recommendation G652D/G657A1
- IEC 60703-2-50 type B1.3/B6A1 optical fibre specification

Applications

- Short pitch cables for special applications
- High performance optical network operating in O-E-S-C-L band
- High-speed optical routes in buildings (FTTx)
- Cables with low bending requirements

Optical Characteristics

		Conditions	Specified Values	Unit
Attenuation		1310nm 1383nm (after H ₂ -aging) 1460nm 1550nm 1625nm	≤0.35 ≤0.35 ≤0.25 ≤0.21 ≤0.23	dB/km dB/km dB/km dB/km dB/km
Attenuation vs Wavelength Max. difference		1285-1330nm, in reference to 1310nm 1525-1575nm, in reference to 1550nm	≤0.03 ≤0.02	dB/km dB/km
Dispersion Coefficient		1285-1340nm 1550nm 1625nm	-3.5 to 3.5 ≤18 ≤22	ps/(nm·km) ps/(nm·km) ps/(nm·km)
Zero Dispersion Wavelength (λ_0)		—	1300-1324	nm
Zero Dispersion Slope (S_0)		—	≤0.092	ps/(nm ² ·km)
Typical Value		—	0.086	ps/(nm ² ·km)
PMD	Maximum Individual Fibre	—	≤0.1	ps/√km
	Link Design Value (M=20, Q=0.01%)	—	≤0.06	ps/√km
	Typical Value	—	0.04	ps/√km
Cable Cut-Off Wavelength (λ_{co})		—	≤1260	nm
Mode Field Diameter (MFD)		1310nm 1550nm	8.4-9.2 9.3-10.3	μm μm
Effective Group Index of Refraction (N_{eff})		1310nm 1550nm	1.466 1.467	- -
Point Discontinuities		1310nm 1550nm	≤0.05 ≤0.05	dB dB



Geometrical Characteristics

	Conditions	Specified Values	Unit
Cladding Diameter	–	125.0±0.7	μm
Cladding Non-Circularity	–	≤1.0	%
Coating Diameter	–	235-250	μm
Coating-Cladding Concentricity Error	–	≤12.0	μm
Coating Non-Circularity	–	≤6.0	%
Core-Cladding Concentricity Error	–	≤0.6	μm
Curl (radius)	–	≥4	m
Delivery Length	–	Up to 50.4	km/reel

Environmental Characteristics

	1310nm, 1550nm & 1625nm		
Temperature Dependence Induced Attenuation	-60°C to +85°C	≤0.05	dB/km
Temperature-Humidity Cycling Induced Attenuation	-10°C to +85°C, 98% RH	≤0.05	dB/km
Water Immersion Dependence Induced Attenuation	23°C, for 30 days	≤0.05	dB/km
Damp Heat Dependence Induced Attenuation	85°C and 85% RH, for 30 days	≤0.05	dB/km
Dry Heat Aging	85°C, for 30 days	≤0.05	dB/km

Mechanical Specifications

		Conditions	Specified Values	Unit
Proof Test		–	≥9.0	N
		–	≥1.0	%
		–	≥100	kpsi
Macro-bend Induced Loss	100 Turns Around a Mandrel of 30mm radius	1625nm	≤0.05	dB
	100 Turns Around a Mandrel of 25mm radius	1310nm and 1550nm	≤0.05	dB
	1 Turns Around a Mandrel of 16mm radius	1550nm	≤0.05	dB
Coating Strip Force		Typical Average Force Peak Force	1.5 1.3-8.9	N N
Dynamic Fatigue Parameter (n _d)		–	≥20	–