

Applications

- All types of fibre cables with different structures
- High performance optical network operating in O-E-S-C-L band
- High speed optical routes for Fibre-to-the-Home networks
- Cables with extreme low bending requirements
- Small-sized fibre cable and optical component

Norms

YOFC EasyBand® Plus bending insensitive Single-mode fibre meets or exceeds the ITU-T Recommendation G.652.D/G.657.A1/G.657.A2/G.657.B2 including the IEC 60793-2-50 type B1.3/B6.a1/B6.a2/B6.b2 Optical Fiber Specification.

Characteristics

- Extremely high bending loss resistance in the 7.5 to 15mm bending radius range
- Full compatibility with all G.652 fibres for any applications
- Low attenuation satisfying the operation demand in O-E-S-C-L band
- Low PMD satisfying high bit-rate and long distance transmission requirements
- Low bending loss for highly demanding cable designs including ribbons
- Accurate geometrical parameters that insure low splicing loss and high splicing efficiency
- High n_p -value satisfying long operational lifetime in minimum bend radius

Characteristics		Conditions	Specified values	Units
Optical Characteristics				
Attenuation		1310nm	≤0.35	[dB/km]
		1383nm(after H ₂ -aging)	≤0.35	[dB/km]
		1460nm	≤0.25	[dB/km]
		1490nm	≤0.23	[dB/km]
		1550nm	≤0.21	[dB/km]
		1625nm	≤0.23	[dB/km]
Attenuation vs. Wavelength Max. α difference		1285-1330nm, in reference to 1310nm	≤0.03	[dB/km]
		1525-1575nm, in reference to 1550nm	≤0.02	[dB/km]
Zero Dispersion Wavelength (λ_D)		--	1300-1324	[nm]
Zero Dispersion Slope (S_D)		--	≤0.092	[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 Cutoff Wavelength (λ_{cc})		--	≤1260	[nm]
Mode Field Diameter (MFD)		1310nm	8.4-9.2	[μm]
		1550nm	9.3-10.3	[μm]
Effective Group Index of Refraction (N_{eff})		1310nm	1.466	--
		1550nm	1.467	--
Point Discontinuities		1310nm	≤0.05	[dB]
		1550nm	≤0.05	[dB]
Geometrical Characteristics				
Cladding Diameter		--	125.0±0.7	[μm]
Cladding Non-Circularity		--	≤0.7	[%]
Coating Diameter		--	235-245	[μm]
Coating-Cladding Concentricity Error		--	≤12.0	[μm]
Coating Non-Circularity		--	≤6.0	[%]
Core-Cladding Concentricity Error		--	≤0.5	[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]
Watersoak 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				
Proof Test		--	≥9.0	[N]
		--	≥1.0	[%]
		--	≥100	[kpsi]
Macro-bend Induced Loss	10 Turns Around a Mandrel of 15 mm Radius	1550nm	≤0.03	[dB]
	10 Turns Around a Mandrel of 15 mm Radius	1625nm	≤0.1	[dB]
	1 Turn Around a Mandrel of 10 mm Radius	1550nm	≤0.1	[dB]
	1 Turn Around a Mandrel of 10 mm Radius	1625nm	≤0.2	[dB]
	1 Turn Around a Mandrel of 7.5 mm Radius	1550nm	≤0.5	[dB]
	1 Turn Around a Mandrel of 7.5 mm Radius	1625nm	≤1.0	[dB]
Coating Strip Force		typical average force	1.5	[N]
		peak force	1.3- 8.9	[N]
Dynamic Fatigue Parameter (n_f)		--	≥20	--