

# EasyBand® Plus Bending Insensitive Single-mode Fibre

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YOFC EasyBand® Plus bending insensitive single-mode fibre combines two attractive features: excellent low macro-bending sensitivity and low water-peak level. It is comprehensively optimized for use in O-E-S-C-L band (1260 -1625 nm).

The EasyBand® Plus's bending insensitive feature not only guarantees L-band applications but also allows for easy installation without excessive care when storing the fibre especially for FTTH networks applications. Bending radii in fibre guidance ports can be reduced as well as minimum bend radii in wall and corner mountings.

## 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
<b>Optical Characteristics</b>				
Attenuation		1310nm	≤0.35	[dB/km]
		1383nm(after H <sub>2</sub> -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 ( $\lambda_D$ )		--	1300-1324	[nm]
Zero Dispersion Slope ( $S_D$ )		--	≤0.092	[ps/(nm <sup>2</sup> ·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 ( $\lambda_{CC}$ )		--	≤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]
<b>Geometrical Characteristics</b>				
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]
<b>Environmental Characteristics</b> <span style="float: right;"><b>1310nm, 1550nm &amp; 1625nm</b></span>				
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]
<b>Mechanical Specifications</b>				
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	--