

GGPR7 High Bending Strength Fiber

Product Information

* U.S. Pat No (s). Re 36,146. Licenses granted by 3M IPC

Issue Date: 2008/10

Product Name: GGPR7

FEATURES

- Based on 3M Licensed High Strength GGP fiber technology, an additional five micron permanent protective coating on the glass cladding makes it the most robust fiber in the telecommunication industry
- Macrobending loss performance compliant to ITU-T G.657 Class B single mode fiber
- Small bending (2R=3~10mm) fatigue lifetime is 100~100,000 times longer than all standard single mode fiber

APPLICATIONS

- FTTH installation, Indoor cable, Drop/Distribution cable, can be used with mechanical splicer
- Low bending loss patch cords with SC, FC, LC type connectors

Characteristics	Conditions	Specified Values	Unit
OPTICAL CHARACTERISTICS			
Attenuation Coefficient	1310 nm	≤ 0.4	[dB/km]
	1385 nm H2 aged*	≤ 0.4	[dB/km]
	1550 nm	≤ 0.25	[dB/km]
	1625 nm	≤ 0.35	[dB/km]
*Hydrogen aging pre IEC60793-2-50 type B.1.3			
Mode Field Diameter	1310 nm	7.0 ± 0.4	[μm]
	1550 nm	8.0 ± 0.5	[μm]
Fiber Cut-Off Wavelength		< 1330	[nm]
Cable Fiber Cut-Off Wavelength		≤ 1260	[nm]
Zero Dispersion Wavelength		1320~1370	[nm]
Zero Dispersion Slope		≤ 0.085	[ps/(nm ² ·km)]
BACKSCATTER CHARACTERISTICS			
Attenuation Directional Uniformity		≤ 0.03	[dB/km]
Attenuation Uniformity		≤ 0.05	[dB]
Group Index of Refraction	1310 nm	1.47	
	1550 nm	1.47	
PHYSICAL CHARACTERISTICS			
Glass Cladding Diameter		115 ± 1	[μm]
P-coat Diameter		125 ± 0.7	[μm]
P-coat Non-Circularity		≤ 1.0	[%]
Core/P-coat Concentricity Error		≤ 0.5	[μm]
Acrylate Coating Diameter		245 ± 10	[μm]
Coating Concentricity Error		≤ 6	[μm]
Fiber curl		≤ 2	[m]
Proof Test (Screen level)		1.72 (250)	[GPa] [kpsi]
Macrobending loss at 1550 nm/1625nm(1 turn, 5 mm radius) (1 turns around a mandrel of 7.5 mm radius)		$\leq 0.5/1.0$	[dB]
		$\leq 0.05/0.1$	[dB]
Acrylate Coating Strip Force, Average / Peak		$\geq 105 / 140$	[g]
Dynamic Fatigue (n_d)	23 °C, 41% RH	> 30	
Length (Typical)		2.2~25.2	[Km]
ENVIRONMENTAL CHARACTERISTICS			
Temperature Dependence at 1310 nm and 1550 nm Induced Attenuation – 60°C to +85 °C		≤ 0.05	[dB/km]
		≤ 0.05	[dB/km]
Damp Heat Dependence at 1310 nm and 1550 nm Induced Attenuation at 85°C, 85%R.H., 30 days		≤ 0.05	[dB/km]
		≤ 0.05	[dB/km]
Watersoak Dependence at 1310 nm and 1550 nm Induced Attenuation at 20°C, 30 days		≤ 0.05	[dB/km]
		≤ 0.05	[dB/km]

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