

## GGPR15XP High Bending Strength Fiber

### Product Information

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

Issue Date: 2009/07

Product Name: GGPR15XP

#### FEATURES

- Based on 3M licensed high strength fiber coating technology, GGPR15XP's special polymeric coating resists fiber strength degradation and lift its environmental fatigue parameter n to greater than 30, makes GGPR15XP one of the most robust fiber in the telecommunication industry
- Optical performance fully compliant to standard ITU-T G.652D Low water peak single mode fiber
- Macro-bending loss performance compliant to ITU-T G.657 Class A single mode fiber
- 90 degree bending fatigue lifetime is hundred times longer than all standard single mode fiber

#### APPLICATIONS

- FTTH installation, Indoor cable, Drop/Distribution cable, can be used with both fusion and mechanical splicer
- All passive components need high strength and low bending loss patch cords.

Characteristics	Conditions	Specified Values	Unit
<b>OPTICAL CHARACTERISTICS</b>			
Attenuation Coefficient	1310 nm	≤ 0.35	[ dB/km ]
	1385 nm H2 aged*	≤ 0.31	[ dB/km ]
	1550 nm	≤ 0.21	[ dB/km ]
	1625 nm	≤ 0.23	[ dB/km ]
*Hydrogen aging per IEC60793-2-50 type B.1.3			
Mode Field Diameter	1310 nm	8.6 ± 0.4	[ μm ]
	1550 nm	9.7 ± 0.5	[ μm ]
Fiber Cut-Off Wavelength		1150 ~ 1330	[ nm ]
Cable Fiber Cut-Off Wavelength		≤ 1260	[ nm ]
Zero Dispersion Wavelength		1300~1324	[ nm ]
Zero Dispersion Slope		≤ 0.092	[ ps/(nm <sup>2</sup> ·km) ]
Dispersion Coefficient	1285 – 1330 nm	≤ 3.1	[ ps/(nm·km) ]
	1550 nm	≤ 18	[ ps/(nm·km) ]
<b>BACKSCATTER CHARACTERISTICS</b>			
Attenuation Directional Uniformity		≤ 0.03	[ dB/km ]
Attenuation Uniformity		≤ 0.05	[ dB ]
Group Index of Refraction	1310 nm	1.467	
	1550 nm	1.468	
<b>PHYSICAL CHARACTERISTICS</b>			
Cladding Diameter		125 ± 0.7	[ μm ]
Core-Cladding Concentricity Error		≤ 0.5	[ μm ]
Acrylate Coating Diameter		245 ± 5	[ μm ]
Coating Concentricity Error		≤ 6	[ μm ]
Fiber curl		≥ 4	[ m ]
Proof Test (Screen level)		1.58 (230)	[ Gpa ] [ Kpsi ]
Macro-bending loss at 1550 nm/1625nm( 1 turn, 10 mm radius) (10 turns around a mandrel of 15 mm radius)		≤ 0.3/1.0	[ dB ]
		≤ 0.03/0.2	[ dB ]
Acrylate Coating Strip Force (Typical)		130	[ g ]
Dynamic Fatigue(n <sub>d</sub> )	23°C, 41%RH	> 30	
Length (Typical)		1.0~25.2	[ Km ]
<b>ENVIRONMENTAL CHARACTERISTICS</b>			
Temperature Dependence at 1310 nm and 1550 nm Induced Attenuation – 60°C to +85°C		≤ 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 ]
Water soak Dependence at 1310 nm and 1550 nm Induced Attenuation at 20°C, 30 days		≤ 0.05	[ dB/km ]

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