

## GGP SM Multi-Wave Fiber

### Product Information

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

Issue Date: 2006/03

Product Name: GGPSMF

#### FEATURES

- Based on 3M Licensed GGP fiber technology, the most robust fiber in the telecommunication industry
- A single mode fiber used in the O, S, C, L band, (1310/1490/1550/1625)
- Fully compatible with standard ITU G652 single mode fiber
- Small bending fatigue lifetime is more than ten thousand times longer than standard single mode fiber

#### APPLICATIONS

- FTTH installation, Indoor cable, Drop/Distribution cable
- Low bending loss patchcords

#### Characteristics

##### OPTICAL CHARACTERISTICS

Characteristics	Conditions	Specified Values		Unit
		A Grade	B Grade	
Attenuation Coefficient	1310 nm	≤ 0.50	≤ 0.60	[dB/km]
	1490 nm	≤ 0.45	≤ 0.55	[dB/km]
	1550 nm	≤ 0.40	≤ 0.50	[dB/km]
	1625 nm	≤ 0.50	≤ 0.60	[dB/km]
Mode Field Diameter	1310 nm	8.6 ± 0.4		[μm]
	1550 nm	9.4 ± 0.5		[μm]
Fiber Cut-Off Wavelength		< 1330		[nm]
Cabled Fiber Cut-Off Wavelength		≤ 1260		[nm]
Zero Dispersion Wavelength		1290 ± 20		[nm]
Zero Dispersion Slope		≤ 0.095		[ps/(nm <sup>2</sup> ·km)]

##### BACKSCATTER CHARACTERISTICS

Point Discontinuity		≤ 0.1	[dB/point]
Group Index of Refraction	1310 nm	1.467	
	1550 nm	1.468	

##### PHYSICAL CHARACTERISTICS

Glass Cladding Diameter		100 ± 1	[μm]	
P-coat Diameter		125 ± 0.7	125 ± 1.0	[μm]
P-coat Non-Circularity		≤ 2.0	[ % ]	
Core/P-coat Concentricity Error		≤ 1	[μm]	
Acrylate Coating Diameter		245 ± 10	[μm]	
Coating Concentricity Error		≤ 12	[μm]	
Fiber curl		≥ 2	[m]	
Proof Test (Screen level)		150 (1.5)	[Kpsi] [ % ]	
Bend Induced Attenuation at 1550 nm, and 1625nm (1 turn around a mandrel of 20 mm diameter)		≤ 0.5	[dB]	
Length (Typical)		1.0~8.8	[Km]	

##### ENVIRONMENTAL CHARACTERISTICS

Temperature Dependence at 1310 nm, 1550 nm, and 1625nm Induced Attenuation – 40°C to +85°C		≤ 0.05	[dB/km]
Advance Heat Aging at 1310 nm, 1550 nm, and 1625nm Induced Attenuation at 85°C, 30 days		≤ 0.05	[dB/km]
Watersoak Dependence at 1310 nm, 1550 nm, and 1625nm Induced Attenuation at 20°C for 30 days		≤ 0.05	[dB/km]

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