

## 50/100/125/250 $\mu$ m GGP Fiber

## Product Information

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

Issue Date: 2005/10

Product Name: GGPSMF

### OPTICAL CHARACTERISTICS

Characteristics	Conditions	Specified Values		Unit
		A Grade	B Grade	
Attenuation Coefficient	850 nm	$\leq 3.0$	$\leq 4.0$	[ dB/km ]
	1300 nm	$\leq 1.0$	$\leq 1.5$	[ dB/km ]
Bandwidth	850 nm	$\geq 500$	$\geq 400$	[ MHz·km ]
	1300 nm	$\geq 500$	$\geq 400$	[ MHz·km ]
Numerical Aperture		$0.200 \pm 0.015$		

### BACKSCATTER CHARACTERISTICS

Attenuation Directional Uniformity		$\leq 0.05$	[ dB/km ]
Attenuation Uniformity		$\leq 0.05$	[ dB ]
Group Index of Refraction	850 nm	1.481	
	1300 nm	1.476	

### PHYSICAL CHARACTERISTICS

Core Diameter		$50.0 \pm 2.5$	[ $\mu$ m ]
Core Non- circularity		$\leq 6$	[ % ]
Core / Cladding Concentricity Error		$\leq 3.0$	[ $\mu$ m ]
Cladding Diameter		$100 \pm 3$	[ $\mu$ m ]
Cladding Non-Circularity		$\leq 2.0$	[ % ]
P-Coat Diameter		$125 \pm 2$	[ $\mu$ m ]
P-Coat Non-Circularity		$\leq 2.0$	[ % ]
P-Coat Concentricity Error		$\leq 3.0$	[ $\mu$ m ]
Coating Diameter		$245 \pm 10$	[ $\mu$ m ]
Coating Non-Circularity		$\leq 6.0$	[ % ]
Coating Concentricity		$\leq 12.5$	[ $\mu$ m ]
Fiber curl		$\geq 2$	[ m ]
Proof Test		100	[ Kpsi ]
Bend Induced Attenuation at 1300 nm (100 turns around a mandrel of 75 mm diameter)		$\leq 1.0$	[ dB ]
Coating Strip Force (Typical)		130	[ g ]
Dynamic fatigue constant ( $n_d$ )		>20	
Length (Typical)		1.0~8.8	[ km ]

### ENVIRONMENTAL CHARACTERISTICS

Temperature Dependence at 850 nm and 1300 nm Induced Attenuation – 40°C to +85°C		$\leq 0.5$	[ dB/km ]
Watersoak Dependence at 850 nm and 1300 nm Induced Attenuation at 23°C for 30 days		$\leq 0.5$	[ dB/km ]
Damp Heat Dependence at 850 nm and 1300 nm Induced Attenuation at 85°C, 85%R.H., 30 days		$\leq 0.5$	[ dB/km ]

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