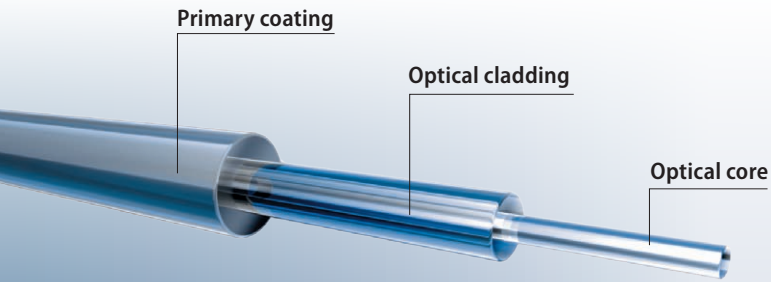


Radiation-hard fibers

Singlemode fiber 09/125



MIL specifications for radiation-resistant singlemode fiber SMF

09/125/245μm	09/125/245μm
MIIL-PRF-49291/7-01	MIIL-PRF-49291/7-02



Optical properties	Specified values	
Core/cladding concentricity error	≤ 1.0	≤ 1.0
Cladding Ø (±1) [μm]	125	125
Cladding ovality [μm]	≤ 2.0	≤ 2.0
Attenuation at 1310 nm/1550 nm [dB/km]	0.4/0.3	0.4 / 0.3
Uniform attenuation at 1310 nm [dB]	≤ 0.1	≤ 0.1
Mode field Ø [μm]	8.5 ≤ MFD ≤ 10.0	8.5 ≤ MFD ≤ 10.0
Chromatic dispersion at 1310 nm/1550 nm [ps/nm ² ×km]	≤ 3.2/22	≤ 3.2/22
Macrobending loss at 1300nm* [dB]	≤ 0.5	≤ 0.5
Coating Ø [μm]	250 ± 15	500 ± 25
Coating/cladding concentricity error [μm]	≤ 10.5	≤ 15.0
Overall coating concentricity ratio (OCCR)	≥ 0.70	≥ 0.84
Mechanical properties		
Length [km]	≥ 1.1	≥ 1.1
Fiber weight [kg/km]	≤ 0.1	≤ 0.25
Proof test [MPa]	≥ 690	≥ 690
Dynamic tensile strength [GPa]	unaged aged	unaged aged
	≥ 3.2 ≥ 1.75	≥ 3.2 ≥ 1.75
Operating temperature [°C]	-46 to +85	-46 to +85
Storage temperature [°C]	-55 to +85	-55 to +85
Coating strip force [N]	1.8 ≤ F ≤ 13.2	1.8 ≤ F ≤ 20.0

* Radius 3.8 ± 0.05 cm, 100 turns