

Graded Index Multimode Fiber

Product Description

In data communications where high reliability, high data capacity, and ease of connectivity are required, OFS multimode optical fibers have become the medium of choice. Among U.S. manufacturers, OFS offers the widest range of graded index multimode fibers as standard selections.

Consistent product quality, on-time delivery, responsive service, and excellent technical support are just a few of the reasons why OFS is one of the world's leading producers of optical fiber.



Characteristics

Physical Characteristics			
	50/125	62.5/125	Test Method (FOTP)
Core Diameter	50 ± 2.5 µm	62.5 ± 2.5 µm	TIA/EIA-455-176
Clad Diameter	125 ± 1 µm	125 ± 1 µm	TIA/EIA-455-176
Coating Diameter	245 ± 10 µm	245 ± 10 µm	TIA/EIA-455-173 or 163
Core Non-Circularity	≤ 5%	≤ 5%	TIA/EIA-455-176
Clad Non-Circularity	≤ 1%	≤ 1%	TIA/EIA-455-176
Core-Clad Offset	≤ 1.5 µm	≤ 1.5 µm	TIA/EIA-455-176
Coating Concentricity	≤ 6 µm	≤ 6 µm	TIA/EIA-455-173 or 163
Standard Proof Test	100 kpsi	100 kpsi	TIA/EIA-455-31
Coating Strip Force	3.0 N mean typ 2.2 - 4.4 N range	3.0 N mean typ 2.2 - 4.4 N range	TIA/EIA-455-178
Standard Lengths	2.2 - 8.8 kms	2.2 - 8.8 kms	---
Optical Characteristics			
Attenuation at 850 nm	≤ 2.4 dB/km	≤ 2.9 dB/km	TIA/EIA-455-46
at 1300 nm	≤ 0.7 dB/km	≤ 0.7 dB/km	
Attenuation at 1380 nm minus attenuation at 1300 nm	≤ 1.0 dB/km	≤ 1.0 dB/km	TIA/EIA-455-46
Attenuation Uniformity / Point Discontinuities, 850 & 1300 nm	≤ 0.08 dB	≤ 0.08 dB	TIA/EIA-455-59
Bandwidth at 850 nm	≥ 500 MHz•km	≥ 200 MHz•km	TIA/EIA-455-204
at 1300 nm	≥ 500 MHz•km	≥ 500 MHz•km	
Numerical Aperture	0.200 ± .015	0.275 ± .015	TIA/EIA-455-177
Zero Dispersion Wavelength	1297 - 1316 nm	1320 - 1365 nm	TIA/EIA-455-168 or 165
Zero Dispersion Slope	≤ 0.101 ps/(nm ² •km)	≤ 0.097 ps/(nm ² •km)	TIA/EIA-455-168 or 165
Group Refractive Index at 850 nm	1.483	1.496	OFS
at 1300 nm	1.479	1.491	
Macrobending Attenuation (100 turns on a 75 mm mandrel)	≤ 0.5 dB	≤ 0.5 dB	TIA/EIA-455-62

Environmental Characteristics			
	50/125	62.5/125	Test Method (FOTP)
Operating Temperature Range	-60 to +85°C	-60 to +85°C	TIA/EIA-455-69
Temperature Induced Attenuation (5, 24-hr cycles -60 to +85C)	≤ 0.1 dB/km	≤ 0.1 dB/km	TIA/EIA-455-3
Temperature / Humidity Cycling (30, 24-hr cycles -10 to +85C, 94% RH)	≤ 0.1 dB/km	≤ 0.1 dB/km	TIA/EIA-455-72
Heat Aging (+85C, 85% RH for 30 days)	≤ 0.2 dB/km	≤ 0.2 dB/km	TIA/EIA-455-67 & 70
Water Immersion (30 days at Room Temp)	≤ 0.2 dB/km	≤ 0.2 dB/km	TIA/EIA-455-74
Dynamic Stress Corrosion Parameter (n_d)	≥ 18	≥ 18	TIA/EIA-455-76

OFS's graded index multimode fibers are 100% quality tested in accordance with the Telecommunications Industry Association (TIA) Fiber Optic Test Procedures (FOTP) and other industry standards.

In addition, OFS optical fiber meets the optical and mechanical requirements of Telcordia Generic Requirements documents GR-20-CORE and GR-409-CORE.

For additional information please contact your sales representative. You can also visit our website at <http://www.ofsoptics.com> or call 1-888-fiberhelp. For regional assistance:

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