Data-Glass®
optical fibers

Specification sheet MMF 50/125

ISO 9001

Data-Glass® multimode optical fiber MMF 50/125 is designed to use with LED / LD transmitters at Gigabit/s speed. A variety of selectable bandwidths are available according to custom specifications. Applications include Ethernet, Token ring, Fast Ethernet, ATM, Fiber channel and FDDI.

Data-Glass ® optical fibers has been producing optical fibers since 1988. Our advantages are commitment to produce quality optical fibers, trained personnel and modern state_of the_art equipment, which assures an unsurpassed competence to our customers.

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Optical characteristics of Data-Glass® MMF 50/125

Category			I	II	III	
Attennuation		850 nm	≤ 2.4	≤ 2.6	≤ 2.8	dB/km
		1300 nm	≤ 0.6	≤ 0.8	≤ 1.0	dB/km
Attennuation at waterpeak		1383 nm			≤ 2.0	dB/km
Attennuation discontinuities (OTDR 1300 nm)					≤ 0.05	dB
Macrobending loss						
Bending induced attennuation (100 turns)					≤ 0.5	dB
Bandwidth (Category)	850 nm	600	400	500	300	MHz·km
(***Overfilled launch Led sources)	1300 nm	1200	800	500	600	MHz·km
Bandwidth options available upon request.						
Numerical aperture			n.a.		0.200 ± 0.015	-

Geometrical characteristics of Data-Glass® MMF 50/125

Core diameter	50 ± 2.5	µm
Core non-circularity	≤ 5	%
Core /clad concentricity error	≤ 1,5	µm
Cladding diameter	125 ± 2.0	µm
Cladding non-circularity	≤ 1	%
Coating diameter (without ink)	245 ± 10	µm
Coating/Clad concentricity error	≤ 10	µm
Standard lenghts:	1.1, 1.4, 1.7, 2.2, 3.3, 4.4, 6.6, 8.8	km

Mechanical characteristics of Data-Glass® MMF 50/125

Proof test			100	kpsi
			8.8	N
Dynamic tensile strenght	Unaged fiber	Median	≥ 550	kpsi
		Weibull slope	≥ 30	
	Aged fiber	Median	≥ 440	kpsi
		Weibull slope	≥ 25	
Dynamic fatigue	Stress corrosion parameter		≥ 20	
Coating strip force (typical)			1.9	N
Operating temperature range			-60…+85	°C

Environmental characteristics of Data-Glass® MMF 50/125

Temperature induced attennuation (-60.. +85 °C)	850/1300 nm	≤ 0.2	dB/km
Temperature / humidity cycle induced attennuation (-10….+85 °C, 4….85% R.H.)	850/1300 nm	≤ 0.2	dB/km
Heat ageing after 30 days at +85°C/ 85% R.H	850/1300 nm	≤ 0.2	dB/km
Water immersion (Fiber soaked in water +23°C for 30 days)	850/1300 nm	≤ 0.2	dB/km