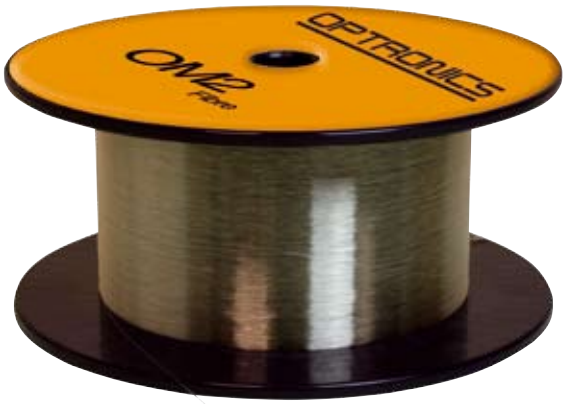
Optronics OM2 50/125 Multimode Fibre

Optronics specification for standard OM2 50/125 graded index multimode optical fibre. Cabled values are given where appropriate. All fibre parameters meet or exceed the following generic and laser optimised 50/125 requirements:

- ITU-T G.651
- IEC 60793-2-10 type A1a.1
- ISO/IEC 11801 OM-2
- TIA/EIA-492AAAB
- Telcordia GR-20-CORE



Applications

- For use in 1 Gb/s high speed LAN networks over a 550m indicative link length at 850nm wavelength using a laser launch
- High speed and legacy networks including Gigabit Ethernet, Fast Ethernet and Ethernet
- All OM2 Optronics cable constructions including tight buffered, loose tube and ribbon
- Premises cabling in data networks including backbone, riser and horizontal
- Supports video, data and voice services

Technical Specification

Parameter	Unit	Value
General Characteristics		
Graded index multimode optical fibre with doped silica core and silica cladding. Dual layer UV cured acrylic resin primary coatings.		
Geometrical Characteristics		
Core diameter	µm	50 ± 2.5
Core non circularity	%	≤ 6
Cladding diameter	µm	125 ± 2
Cladding non circularity	%	≤ 1.0
Core/cladding concentricity error	µm	≤ 1.5
Coating/cladding concentricity error	µm	≤ 12
External diameter (uncoloured)	µm	245 ± 10
Transmission Characteristics		
Maximum attenuation fibre @ 850 nm	dB/km	≤ 2.5
Maximum attenuation fibre @ 1300 nm	dB/km	≤ 0.7
Maximum attenuation cabled @ 850 nm	dB/km	≤ 3.5
Maximum attenuation cabled @ 1300 nm	dB/km	≤ 1.5
Typical attenuation cabled @ 850 nm	dB/km	≤ 2.7
Typical attenuation cabled @ 1300 nm	dB/km	≤ 0.9
Zero dispersion wavelength λ_0	nm	≥ 1295
		≤ 1320
Zero dispersion slope S_0	ps/(km^2·km)	≤ 0.11

Parameter	Unit	Value
Numerical aperture (NA)		0.200 ± 0.015
Modal bandwidth @ 850 nm overfilled LED	MHz·km	≥ 500
Modal bandwidth @ 1300 nm overfilled LED	MHz·km	≥ 500
Group refractive index @ 850 nm		1.482
Group refractive index @ 1300 nm		1.477
Fibre irregularities point and whole length @1300 nm	dB	≤ 0.2
Environmental Characteristics		
Fibre temperature dependence -60°C to +85°C	dB/km	≤ 0.1
Fibre temperature and humidity cycling -10°C to +85°C, 90% R.H.	dB/km	≤ 0.2
Fibre watersoak dependence 23 °C for 30 days	dB/km	≤ 0.2
Mechanical Characteristics		
Proof test fibre strain for 1 second equivalent	%	1
Bending dependence 100 turns 75 mm diameter 850 nm & 1300 nm	dB	≤ 0.5
Typical mean coating strip force	N	1.7 to 2.7