Properties of cabled Standard Multimode 62.5µm fibre

Multimode OM1 fibre to be used at 850 nm and 1300 nm

General and application

Graded index multimode fibre suitable for transmission speeds of up to 10 Gb/s (33m 10GBASE-SX). It has a 62.5µm core diameter and a 125µm cladding diameter. The fibre is suitable for use in premises wiring applications and will support link lengths greater than 400 metres at 850nm and 1000 metres at 1300nm in Local Area Network Applications (LAN)

Standards and Norms

IEC 60793-2-10 Category A1_b	ISO / IEC 11801 Category OM1	AS / NZS 3080

Attenuation of cabled fibre

Attribute	Measurement method	Units	Limits
Maximum attenuation value of cable @ 850 nm	IEC 60793-1-40	dB/km	3.2
Maximum attenuation value of cable @ 1300 nm		dB/km	1.0
Inhomogeneity of OTDR trace for any two 1000 m fibre lengths		db/km	Max. 0.2

Bandwidth

Attribute	Measurement method		Values
850 nm	IEC 60793-1-41	MHz.km	200
1300 nm		MHz.km	500

Group index of refraction

Attribute	Measurement method	Units	Limits
Effective group index at 850 nm	IEC 60793-1-22		1.496
Effective group index at 1300 nm			1.491

Other properties

Attribute	Measurement method	Units	Limits
Core diameter	IEC 60793-1-22	µm	62.5 ± 3.0
Cladding diameter		µm	125 ± 1.0
Cladding non-circularity		%	≤ 1.0
Core non-circularity		%	≤ 5
Core cladding concentricity error		µm	≤ 1.5
Primary coating diameter	IEC 60793-1-22	µm	250 ± 15
Primary coating non-circularity		%	≤ 5
Primary coating-cladding concentricity error		µm	≤ 10
Proof stress level	IEC 60793-1-30	GPa	≥ 0.7 (≈ 1 %)
Typical average strip force	IEC 60793-1-32	N	1.7
Strip force peak (F)		N	1.3 ≤ F ≤ 8.9
Numerical aperture	IEC 60793-1-43	µm	0.275 ± 0.015