

OM4 50µm Multimode Fibre

APPLICATIONS

- IEC / EN 60793-2-10: type A1-OM4
- TIA/EIA-492 AAAP (formerly 492 AAAD)
- ITU-T G.651.1
- ISO/IEC 11801: Category OM4
- ANSI/TIA/EIA-568.3-D



Attenuation in Cable

ATTRIBUTE	MEASUREMENT METHOD	UNITS	LIMITS
MAXIMUM ATTENUATION IN CABLE AT 850 NM	IEC/EN 60793-1-40	dB/km	≤ 2.5
MAXIMUM ATTENUATION IN CABLE AT 1300 NM	IEC/EN 60793-1-40	dB/km	≤ 0.7
POINT DISCONTINUITY AT 850 NM AND 1300 NM	IEC/EN 60793-1-40	dB	≤ ± 0.1

Bandwidth

ATTRIBUTE	MEASUREMENT METHOD	UNITS	LIMITS
OVERFILLED (OFL) MODAL BANDWIDTH AT 850 NM	IEC/EN 60793-1-41	MHz • km	≥ 3500
OVERFILLED (OFL) MODAL BANDWIDTH AT 1300 NM	IEC/EN 60793-1-41	MHz • km	≥ 500
EFFECTIVE MODAL BANDWIDTH (EMB) AT 850 NM	IEC 60793-1-49	MHz • km	≥ 4700

Attenuation Variation Vs Bending

ATTRIBUTE	MEASUREMENT METHOD	UNITS	LIMITS
2 TURNS ON A R = 7.5 MM MANDREL AT 850 / 1300 NM	IEC/EN 60793-1-40	dB	≤ 0.2 / ≤ 0.5
2 TURNS ON A R = 15 MM MANDREL AT 850 / 1300 NM	IEC/EN 60793-1-40	dB	≤ 0.1 / ≤ 0.3

Optical Properties

ATTRIBUTE	MEASUREMENT METHOD	UNITS	LIMITS
NUMERICAL APERTURE	IEC/EN 60793-1-43	–	0.200 ± 0.015

Group Index of Refraction

ATTRIBUTE	MEASUREMENT METHOD	UNITS	LIMITS
850 NM	IEC/EN 60793-1-22	–	1.482
1300 nm	IEC/EN 60793-1-22	–	1.477

Geometrical Properties

ATTRIBUTE	MEASUREMENT METHOD	UNITS	LIMITS
CORE DIAMETER	IEC/EN 60793-1-20	µm	50 ± 2.5
CORE NON-CIRCULARITY	IEC/EN 60793-1-20	%	≤ 5
CORE-CLADDING CONCENTRICITY ERROR	IEC/EN 60793-1-20	µm	≤ 1.5
CLADDING DIAMETER	IEC/EN 60793-1-20	µm	125.0 ± 1.0
CLADDING NON-CIRCULARITY	IEC/EN 60793-1-20	%	≤ 1.0
COATING DIAMETER	IEC/EN 60793-1-21	µm	245 ± 15
COATING NON-CIRCULARITY	IEC/EN 60793-1-21	%	≤ 5
COATING-CLADDING CONCENTRICITY ERROR	IEC/EN 60793-1-21	µm	≤ 10

Mechanical Properties

ATTRIBUTE	MEASUREMENT METHOD	UNITS	LIMITS
PROOF STRESS LEVEL	IEC/EN 60793-1-30	GPa	≥ 0.7 (≈ 1 %)
STRIP FORCE (TYPICAL)	IEC/EN 60793-1-32	N	1.0 ≤ F _{avg.strip} ≤ 3.0
STRIP FORCE (PEAK)	IEC/EN 60793-1-32	N	1.3 ≤ F _{peak.strip} ≤ 8.9
DYNAMIC FATIGUE RESISTANCE, AGED AND UNAGED	IEC/EN 60793-1-33	–	n _d ≥ 20