

# OM1 Multimode Optical Fiber

## TECHNICAL INFORMATION

Panduit OM1 multimode fiber exceeds domestic and international standards including TIA-492AAAA and IEC 60793-2-10 Category A1b. It supports a diverse set of legacy applications including Ethernet, Fibre Channel, Fiber Distributed Data Interface (FDDI), Token Ring, Asynchronous Transfer Mode (ATM) and FICON (Fiber Connection) among others.

## GEOMETRY

DIMENSION	VALUE
Core Diameter:	62.5 $\mu\text{m} \pm 2.5 \mu\text{m}$
Core Non-Circularity:	$\leq 5\%$
Cladding Diameter:	125 $\mu\text{m} \pm 1.0 \mu\text{m}$
Cladding Non-Circularity:	$\leq 1.0\%$
Core-Cladding Concentricity:	$\leq 1.0 \mu\text{m}$
Coating Diameter:	245 $\mu\text{m} \pm 10 \mu\text{m}$
Coating-Cladding Concentricity:	$\leq 10 \mu\text{m}$

## ATTENUATION

WAVELENGTH	VALUE
850 nm:	$\leq 2.9 \text{ dB/km}$
1300 nm:	$\leq 0.6 \text{ dB/km}$

## OPTICAL CHARACTERISTICS

PROPERTY	VALUE
Point Discontinuity:	$\leq 0.1 \text{ dB}$
Numerical Aperture:	$0.275 \pm 0.015$
Group Index of Refraction – 850 nm (typical):	1.495
Group Index of Refraction – 1300 nm (typical):	1.491
Zero Dispersion Wavelength (typical):	$1343 \pm 11 \text{ nm}$
Macrobend Attenuation: 100 turns @ 37.5 mm radius – 850 nm 100 turns @ 37.5 mm radius – 1300 nm	$\leq 0.5 \text{ dB}$ $\leq 0.5 \text{ dB}$

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## TRANSMISSION PROPERTIES

BANDWIDTH	OM1
Overfilled Bandwidth – 850 nm (MHz·km):	≥ 200
Overfilled Bandwidth – 1300 nm (MHz·km):	≥ 500
Effective Modal Bandwidth – 850 nm (MHz·km):	≥ 220

## MECHANICAL PROPERTIES

PROPERTY	VALUE
Proof Test:	≥ 0.7 GPa
Coating Strip Force (typical):	2 N

## ENVIRONMENTAL PROPERTIES

TEST	VALUE
Operating Temperature	-60°C to 85°C
Temperature Dependence (850 nm & 1300 nm from -60°C to +85°C):	≤0.1 dB/km
Temperature-Humidity Cycling (850 nm & 1300 nm from -10°C to +85°C, > 94% RH):	≤0.1 dB/km
Accelerated Aging (850 nm & 1300 nm at 85°C for 30 days):	≤0.1 dB/km
Water Immersion Induced Attenuation (850 nm & 1300 nm at 23°C for 30 days):	≤0.1 dB/km