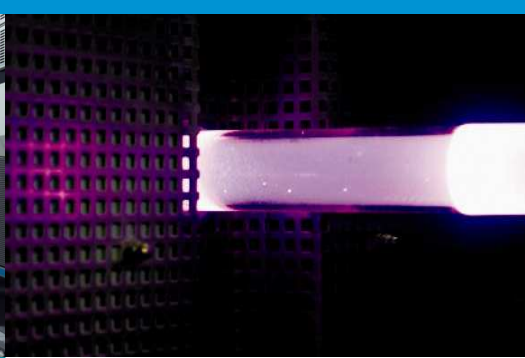
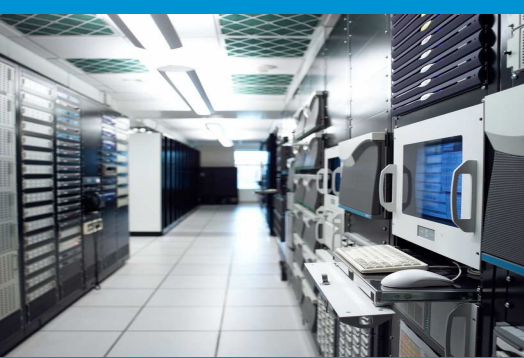


Highest bandwidth available in the market



Multimode Fiber

Product Type: 50 / 125 / 242 μm Multimode Fiber (OM1 / OM2)

Issue date: 09/09

Coating Type: Dual layer Primary Coating (DLPC9)

Supersedes: 07/09

For premises cabling in Datacom networks

- Innovative products for Local Area Network (LAN) applications



Value Innovation is a way of looking at the world. How we can help our customers do more, make more, save more, achieve more.

This graded-index 50/125 μm multimode fiber has a 50 μm core diameter and a 125 μm cladding diameter. The fiber is designed for use at 850 nm and/or 1300 nm and is suitable for use in premises cabling applications, like Local Area Networks (including backbone, riser and horizontal) with video, data and/or voice services using LED, VCSEL and Fabry-Perot laser sources at 850 nm or 1300 nm. This multimode fiber assures full compatibility with legacy systems, like Fast Ethernet, FDDI, ATM, Fibre Channel and 1Gb/s Ethernet. Because of the nature of the Plasma-activated Chemical Vapor Deposition (PCVD and APVD™) manufacturing process, this fiber offers the highest bandwidth available in the market.

The fiber complies with or exceeds ITU Recommendation G.651.1, IEC 60793-2-10 type A1a.1 Optical Fiber Specification, TIA/EIA-492AAAB detail specification and Telcordia GR-20-CORE and GR-409-CORE specifications.

Key Industry Leading Milestones

- 1998 ● Draka introduces first extended reach 1 Gb/s Ethernet fiber: HiCap multimode.
- 2003 ● First OM3 type fiber with an extended reach using 10 Gb/s over 550 m: MaxCap-OM4 multimode fiber.

Features	Benefits
Produced by the PCVD and APVD™ processes, the ultimate processes for graded-index multimode fibers	<ul style="list-style-type: none"> • Superior geometry, uniformity and purity of glass • PCVD and APVD™ produced multimode fibers show excellent modal bandwidth performance
Coated with the dual layer UV Acrylate	<ul style="list-style-type: none"> • Optimized performance in tight-buffer cable applications • High resistance to micro-bending • Stable performance over a wide range of environmental conditions • Improved an easier stripability of tight buffer coatings

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Characteristics	Conditions	Specified Values	Units
Optical Specifications (Uncabled fiber)			
Attenuation Coefficient	850 nm	≤ 2.1 ≤ 2.2 ≤ 2.3	dB/km
	1300 nm	≤ 0.4 ≤ 0.5 ≤ 0.6	dB/km
Overfilled Modal Bandwidth ^{1,2}	850 nm	≥ 400 to ≥ 1000	MHz.km
	1300 nm	≥ 400 to ≥ 1500	MHz.km
Numerical Aperture		0.200 ± 0.015	
Chromatic Dispersion			
Zero dispersion wavelength, λ ₀		1295 ≤ λ ₀ ≤ 1340	nm
Zero dispersion slope, S ₀	1295 nm ≤ λ ₀ ≤ 1310 nm	≤ 0.105	ps/nm ² .km
	1310 nm ≤ λ ₀ ≤ 1340 nm	≤ 0.000375 (1590 - λ ₀)	ps/nm ² .km
Bending Loss	850 nm, 1300 nm / 100 turns, 75 mm diam.	≤ 0.5	dB
Backscatter Characteristics ³			
Point discontinuity ⁴	850 nm, 1300 nm	≤ 0.1	dB
Irregularities over fiber length	850 nm, 1300 nm	≤ 0.1	dB
Reflections		Not allowed	
Group Index of Refraction (Typ.)	850 nm	1.482	
	1300 nm	1.477	
Geometrical Specifications			
Core Diameter		50 ± 2	μm
Core Non-Circularity		≤ 5	%
Core/Cladding Concentricity Error		≤ 1	μm
Cladding Diameter		125.0 ± 1.0	μm
Cladding Non-Circularity		≤ 0.7	%
Coating Diameter		242 ± 5	μm
Coating Non-Circularity		≤ 5	%
Coating/Cladding Concentricity Error		≤ 6	μm
Length	Standard lengths up to <i>Other lengths available on request</i>	17.6	km
Environmental Specifications			
Temperature cycling	850 nm, 1300 nm / -60°C to 85°C	≤ 0.1	dB/km
Temperature- Humidity cycling	850 nm, 1300 nm / -10°C to 85°C, 4-98% RH	≤ 0.1	dB/km
Water Immersion	850 nm, 1300 nm / 23°C, 30 days	≤ 0.1	dB/km
Dry Heat	850 nm, 1300 nm / 85°C, 30 days	≤ 0.1	dB/km
Damp Heat	850 nm, 1300 nm / 85°C; 85% RH, 30 days	≤ 0.1	dB/km
Mechanical Specifications			
Proof test	Off line	> 0.7 (100)	GPa (kpsi)
Dynamic tensile strength (median value)	0.5 meter gauge length unaged and aged ⁵	> 3.8 (550)	GPa (kpsi)
Fatigue parameter (Typ.)	Dynamic fatigue, unaged and aged ⁵	n _d > 25	
Coating strip force	Average strip force, unaged and aged ⁶	1 to 3	N
	Peak strip force, unaged and aged ⁶	1.3 to 8.9	N

1). The modal bandwidth is linearly normalised to 1 km, according to IEC 60793-2-10.

2). Dual window bandwidth specifications are selectable; possibilities are:

850 nm	1300 nm
400	2000 MHz.km
600	1200 MHz.km
800	800 MHz.km

3). OTDR measurement with 0.5 μs pulse width.

4). Mean of bi-directional measurement.

5). Aging at 85°C, 85% RH, 30 days

6). Aging: • 23°C, 0°C and 45°C

• 30 days at 85°C and 85% RH

• 14 days water immersion at 23°C