

# Alcatel's 62.5/125 Multimode

graded index fiber is one of Alcatel's preeminent fibers for Multimode applications. The fibers have been designed to satisfy the increasing pressure for Service Providers to support the exponential growth in high-speed transmission over shorter distances, including corporate and campus environments.

As one of the world's largest manufacturers of communications products, Alcatel has the expertise, technology and manufacturing resources to provide a total end-to-end solution to support your fiber, cable, and systems requirements.

Alcatel graded index Multimode fibers operate in both the 850nm and 1300nm regions and are ideally suited for use in Local Area Networks (LANs) for data, voice, and video transmissions.

The 62.5/125 Multimode fiber is fully compatible with all of the major industry network standards available on the market today, including FDDI, Ethernet, Fast Ethernet, ATM, and Token Ring. The 62.5/125 Multimode fiber is also guaranteed for use in a variety of cables, including loose tube and tight buffer cable.

All of Alcatel's Multimode fibers are further enhanced with Alcatel's unique processes, including the Alcatel Fiber Coating (AFC™) process. The AFC™ coating ensures a level of fiber durability and robustness even in harsh environments. Additionally, Alcatel's Multimode Fibers benefit from their Furnace Chemical Vapor Deposition (FCVD) process. The FCVD process ensures superior geometry and uniformity, as well as enhanced purity.

	FEATURES	BENEFITS
\[ \]	Operates at both 850nm and 1300nm wavelengths	Enhanced transmission capacity
	Optimized to take advantage of lower-cost transceivers (LEDs)	Significant cost savings
	Compatible with all major network standards, including FDDI, Ethernet, Fast Ethernet, Token Ring and ATM	Operational flexibility
	Utilizes Alcatel's proprietary Furnace Chemical Vapor Deposition (FCVD) process	Ensures fiber with superior geometry and uniformity, as well as enhanced purity
	Utilizes Alcatel's unique fiber coating AFC™, specially modified for Multimode	Provides superior durability and robustness even in the harshest conditions, resulting in lower maintenance and replacement costs

# KEY INDUSTRY LEADING MILESTONES

- ▶ 1999- Introduced Alcatel's AFC<sup>TM</sup> coating specifically designed to provide superior aging performance for Multimode fibers and better stability during the coating process
- **2000** Introduced Alcatel's proprietary Furnace Chemical Vapor Deposition (FCVD) fiber production process to ensure the highest quality fiber



#### **OPTICAL SPECIFICATIONS** Typical Spectral Attenuation and Bandwidth (modal dispersion) Attenuation 850/1300nm Bandwidth 850/1300nm $2.8/0.8 \, dB/km$ 250/800 MHz km 2.9/0.8 dB/km 200/500 Mhz km $3.5/1.5 \, dB/km$ 160/200 Mhz km **Point Discontinuity** @850nm/1300nm 0.2 dB Maximum **Bending Sensitivity Attenuation** The maximum attenuation with bending does not exceed the following values @ 850nm and 1300nm: $\leq 0.5 \, dB/km$ 100 turns on 75nm diameter **Chromatic Dispersion** Zero Dispersion Wavelength (λο) 1320 to 1365nm Zero Dispersion Slope (So): ≤ 0.11 ps/nm<sup>2</sup> km for 1320nm < $\lambda o < 1348$ nm is typically for 1348nm < $\lambda$ o <1365nm is typically $\leq 0.001 * (1458-\lambda_0) \text{ ps/nm}^2 \cdot \text{km}$ Numerical Aperture (NA) Numerical Aperture $0.275 \pm 0.015$ **Effective Group Index of Refraction** @ 850nm 1.497 1.492 @1300nm

Fibers with different characteristics and lengths available upon request References for products: IEC pub 60793/2 EN 188000-206 Alcatel reserves the right to change specifications without prior notice.

G	EN	IER/	٩L	Sf	PEC	IFIC	CAT	101	NS

Core Diameter  $62.5 \pm 3 \mu m$ Core Non-Circularity 6% Maximum Cladding Diameter  $125 \pm 2 \mu m$ Cladding Non-Circularity 2% Maximum Core/Cladding Concentricity Error 6% Maximum  $245 \pm 15 \mu m$ Coating Diameter Coating Non-Circularity 6% Maximum Cladding Concentricity Error 12.5 µm Maximum

# **ENVIRONMENTAL SPECIFICATIONS**

### Induced Attenuation Change@ 850 &1300nm

Operating Temperature -60 to +85°C  $$\leq 0.2 \text{ dB/km}$$  Temperature/Humidity Cycling -10/+70°C RH 95%  $$\leq 0.2 \text{ dB/km}$$ 

## **MECHANICAL SPECIFICATIONS**

#### Proof-test

The entire length is subjected to a tensile proof-test @1% strain for 0.5 s, or equivalent. This exceeds the requirements of 100 Kpsi stress proof-testing.

## Other Values

Stress corrosion factor (n) >20 Strippability (50-500mm/mn) > 1 N

## **Delivery Lengths**

1.1, 2.2, 3.3, 4.4, 5.5, 6.6, 7.7, 8.8 km

References for measurements EC Pub 60793 1-1, 1-2, 1-3, 1-4, 1-B6 EIA-TIA 455-31C/46A/58A/59/168A/173/176/177A/204

> For additional information visit Alcatel online or call your nearest Optical Fiber Sales Representative

# www.alcatel.com/opticalfiber

Brazil	+55 11 3068 9993
France	+33 1 55 51 51 51
	+33 1 39 19 12 00
Germany	+49 2166 27 2164
India	+91 11 335 9650
Spain	+34 942 247 111
-	+44 1633 413 600
North America	+1 828 459 9787
	800 879 9862

