AKSH OPTIFIBRE LIMITED

An ISO 9001:2008 & ISO 14001:2004 Certified Company

Product: Aksh Multimode 62.5 micron Fibre

Product Description:

Aksh 62.5 micron Multimode Fibre is specified for use in high-speed laser based network protocols, as well as networks using LED as signal source. It supports fibre optic network protocols such as Gigabit Ethernet, ATM, Fast Ethernet and lower bit rate networks used in Local Area Networks (LAN), Storage Area Networks (SAN), high-speed parallel interconnects for central offices and local access networks.

International Standards:

Aksh 62.5 micron Multimode fibre complies or exceeds the ITU recommendation G.651 or the IEC 60793-2-10 Optical fibre specification. Each fibre is 100% quality measured according to IEC 60793.

Product Specification:

Material Properties:

Glass Composition	Core: Germania (GeO_2) doped Silica (SiO_2) Cladding: Silica (SiO_2)
Primary Coating	2 layers of UV curable resin

Attenuation Coefficient:

At 850 nm	$\leq$ 2.90 dB/km
At 1300 nm	$\leq$ 0.70 dB/km
At 1383 nm	$\leq$ 2.00 dB/km
Point Discontinuity	$\leq$ 0.05 dB

Bandwidth vs. wavelength

At 850 nm	$\geq$ 200 MHz.km
At 1300 nm	$\geq$ 500 MHz.km

Numerical Aperture: 0.275 $\pm$ 0.015

Effective Group Refraction of Index (IOR)

At 850nm:	1.497
At 1300nm:	1.493

Geometrical Specification:

Core Diameter	62.5 ± 2.5 µm
Core Non-Circularity	$\leq$ 5.0 %
Cladding Diameter	125 ± 1.0 µm
Core Clad Concentricity Error	$\leq$ 1.0 µm
Cladding Non-Circularity	$\leq$ 1.0 %
Coating Diameter	245 ± 10 µm
Coating-Cladding Concentricity Error	$\leq$ 10 µm

Mechanical Characteristics:

Proof Test	1 %
Coating Strip force	$1.3 \leq F \leq 5.0$
Dynamic Fatigue Parameter	≥ 20
Static Fatigue Parameter	≥ 20
Dynamic Tensile Strength	
Unaged	> 550 Kpsi (3.8 Gpa)
Aged (85^0C, 95 % RH for 30 days)	> 440 Kpsi (3.0 Gpa)

Macro Bending Loss:

Mandrel Diameter (mm)	Number of Turns	Wavelength (nm)	Induced Attenuation (dB)
75	100	850	0.50
75	100	1300	0.50

Environmental Characteristics:

Environmental Test	Test Condition	Induced Attenuation 850 nm & 1300 nm (dB/km)
Temperature Dependence	-60^0C to $+85^0$C	< 0.20
Water Immersion	$23^0 \pm 2^0$C	< 0.20
Heat Aging	$85^0 \pm 2^0$C	< 0.20
Damp Heat	85^0C at 85% RH	< 0.20

Shipping Information

Reel Dimension:

Fibre is available with following type of reel.

Flange Diameter:	234.9 mm
Traverse Width:	95.00 mm
Bore Diameter:	25.45 mm
Barrel Diameter:	152.4 mm

Reel Length:

Max. fibre length: 17.6 km

Length distribution

8.8 km or 17.6 km	100 %

Reel Identification:

The label with ID number, barcode of ID number, attenuation at 850 nm and 1300 nm, product code and fibre length shall be attached on each reel.