HFCL LTD.

FLEXI ARCH PLUS MICRO

PRODUCT DESCRIPTION

- HFCL'S FLEXI ARCH PLUS MICRO IS A REDUCED DIAMETER SINGLE MODE OPTICAL FIBER WITH CHARACTERISTICS OF BEND INSENSITIVE WITH ENTIRE BANDWIDTH RANGING FROM 1260nm TO 1625nm.
- "HFCL'S FLEXI ARCH PLUS MICRO PROVIDES SUPERIOR MACRO BEND, REDUCED PMD LOSSES. THIS BEND-OPTIMIZED FIBER RESULTS IN LOW ATTENUATION LOSSES AFTER CABLING IN THE SMALLER-DIAMETER DESIGN, FTTH ETC.
- "FLEXI ARCH PLUS MICRO" IS FULLY COMPLIANT OR EXCEEDS WITH ITU-T G.657A2 AND G.652D RECOMMENDATIONS.

TRANSMISSION CHARACTERISTICS

ATTRIBUTE	UNIT	VALUE
Attenuation @ 1310 nm	dB/km	≤ 0.35
Attenuation @ 1383 nm*	dB/km	≤ 0.35
Attenuation @ 1550 nm	dB/km	≤ 0.21
Attenuation @ 1625 nm	dB/km	≤ 0.23
Point Discontinuities at 1310 nm and 1550 nm	dB	≤ 0.05
Zero Dispersion Wavelength	nm	1300 to 1324
Zero Dispersion Slope	ps/nm^2.km	≤ 0.092
Max Dispersion 1285 nm-1330 nm	ps/nm.km	≤ 3.5
Dispersion @ 1550 nm	ps/nm.km	≤ 18
Dispersion @ 1625 nm	ps/nm.km	≤ 22
PMD coefficient Individual Fiber	ps/√km	≤ 0.1
PMD LDV	ps/√km	≤ 0.06

* After Hydrogen aging according to IEC 60793-2-50.for B 1.3 fiber category.

GEOMETRICAL CHARACTERISTICS

ATTRIBUTE	UNIT	VALUE
Cable Cutoff Wavelength	nm	≤ 1260
Cladding Diameter	µm	125 ± 0.7
Mode Field Diameter	µm	1310 nm: 8.6±0.4
Core-clad concentricity error	µm	≤ 0.5
Cladding Non Circularity (Ovality)	%	≤ 0.7
Secondary Coating Diameter	µm	190 ± 10
Coating-cladding concentricity error	µm	≤ 10
Coating Non Circularity (Ovality)	%	≤ 4

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MECHANICAL CHARACTERISTICS

ATTRIBUTE	UNIT	VALUE
Proof stress level	kpsi	≥ 100 (0.69 GPa) or 1% strain
Dynamic tensile strength (un-aged)	GPa	≥ 3.8
Coating strip force (peak)	N	0.4 ≤ F ≤ 8.9
Fiber Curl	m	≥ 4
Stress corrosion susceptibility parameter (Dynamic Fatigue), Nd		≥ 20
Macro Bend Loss		
Change in attenuation when fiber is coiled with 1 turn around 15 mm diameter mandrel		≤ 0.50 dB at 1550 nm ≤ 1.00 dB at 1625 nm
Change in attenuation when fiber is coiled with 1 turn around 20 mm diameter mandrel		≤ 0.10 dB at 1550 nm ≤ 0.20 dB at 1625 nm
Change in attenuation when fiber is coiled with 10 turn around 30 mm diameter mandrel		≤ 0.03 dB at 1550 nm ≤ 0.10 dB at 1625 nm

ENVIRONMENTAL CHARACTERISTICS

ATTRIBUTE	VALUE
Temperature Cycling Induced Attenuation at 1310nm, 1550 nm, 1625 nm at -60°C to +85°C	≤ 0.05 dB/Km
Temperature-Humidity Cycling Induced attenuation at 1310nm, 1550 nm, 1625 nm at -10° C to +85° C and upto 98% relative humidity	≤ 0.05 dB/Km
Water Immersion Induced attenuation at 1310nm, 1550 nm, 1625 nm due to water immersion at 23 ± 2° C	≤ 0.05 dB/Km
Accelerated Aging (Temperature) Induced attenuation at 1310nm, 1550 nm, 1625 nm due to Temperature aging at 85 ± 2° C	≤ 0.05 dB/Km
Damp Heat Induced attenuation at 1310nm, 1550 nm, 1625 nm due to Temperature& Humidity aging at +85° C and 85% relative humidity	≤ 0.05 dB/Km

NOTE: FIBERS CAN BE SUPPLIED BASED ON CUSTOMER REQUIREMENTS EITHER IN NATURAL / COLOR.

INSPECTION CERTIFICATE

HFCL SHALL PROVIDE IN-HOUSE TEST CERTIFICATE WHICH INCLUDE OPTICAL, MECHANICAL PARAMETERS AS PER CUSTOMER REQUIREMENTS.

MATERIAL PROPERTIES

GROUP REFRACTIVE INDEX OF FIBER:
1.466 @ 1310 nm
1.467 @ 1550 nm
1.470 @ 1625 nm

ISO 9001 | TL9000 CERTIFIED