AIR BLOWING MICRO CABLE

Stranded micro cable

PRODUCT DESCRIPTION

- The specification covers the construction and properties of optical fiber cable
- The cable shall be blown into preset micro duct.
- The cable generally meets any latest relevant IEC, ITU-T Recommendation or better.
- The fiber shall operate in 1310nm and 1550nm.
- The cable could serve for more than 25 years without any significant deterioration.

CONSTRUCTION

Cable Type		GCYFY
Fiber Count		144,288
Fiber	Construction	Consult 3.1
Central Strength Member	Material	FRP with PE coated when necessary
Loose Tube	Material	PBT
	Filling Compound	Thixotropic Jelly
Filler	Material	Polypropylene (PP) if necessary
Water Blocking Member	Material	Water Blocking Yarn
Ripcord 1	Material	Polyester white color
	No.	1
Outer Sheath	Material	Black HDPE
	Thickness	Approx 0.5mm

CROSS SECTION OF CABLE

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CONSTRUCTION

Fiber	Type	Single mode type ITU-T G.652D
Mode field diameter	Material	Ge doped fused silica
	1310 nm	9.2±0.4μm
	1550 nm	10.4±0.8μm
Cladding diameter		125±1.0μm
Core/Cladding concentricity error		≤ 0.5μm
Cladding non-circularity		≤ 1.0%
Coating	Material	UV curable acrylic
	Diameter	242±5μm
Coating-cladding concentricity		≤ 12μm
Attenuation	1310nm	≤.36dB/km
	1550nm	≤.22dB/km
Zero-dispersion Wavelength		1300~1324nm
Zero-dispersion slope		≤0.092ps/(nm².km)
Chromatic Dispersion Coefficient	1310nm	≤3.5(ps/nm.km)
	1550nm	≤18(ps/nm.km)
Cable Cut-off Wavelength (λ_{cc})		≤1260nm
Polarization Mode Dispersion(PMD)		≤0.2ps/km$^{1/2}$
Macrobend Loss	1550nm	≤0.1dB 100 turns 30mm radius
Fiber proof-Tested		0.69GPa

LOOSE TUBE STRANDING, CABLE SIZE AND WEIGHT

Fiber count	Fiber number per tube	Number of tube / filler	Diameter (±0.2 mm)	Approx. Weight (kg/km)
144	12	12/0	8.0mm	55
288	12	1st layer: 9/0 2nd layer: 15/0	9.4mm	75

FIBER COLOR

No.	1	2	3	4	5	6
Color	Blue	Orange	Green	Brown	Slate	White
No.	7	8	9	10	11	12
Color	Red	Black	Yellow	Violet	Rose	Aqua

TEST REQUIREMENTS

Item	Test Method	Specification at 1550nm
Tensile	IEC 60794-1-2-E1 Load : 1,000N Hold Time : 10 minutes	Attenuation change ≤ 0.1 dB Fiber strain ≤0.6% No fiber break and no sheath damage
Crush	IEC 60794-1-2-E3 Load : 1,000N/100mm Time : 10 minutes	Attenuation change ≤0.1 dB No fiber break and no sheath damage
Impact	IEC 60794-1-2-E4 Impact energy : 1J Radius of hammer head :12.5mm No of impacts : 3 point (1 time/point)	Attenuation change ≤0.1 dB No fiber break and no sheath damage
Repeat Bending	IEC 60794-1-2-E6 Load : 20N No of cycles : 25	Attenuation change ≤0.1 dB No fiber break and no sheath damage
Torsion	IEC 60794-1-2-E7 Length : 1m Twist angle :±180° No of cycles :5	Attenuation change ≤0.1 dB No fiber break and no sheath damage
Temperature Cycling	IEC 60794-1-2-F1 No of cycles : 2 Temperature : -20 to +70°c	Attenuation change ≤0.1 dB No fiber break and no sheath damage
Water Penetration	IEC 60794-1-2-F5B Head of water : 1m Time : 34 hours Sample Length : 3m	No water leakage
Compound Flow Test	IEC -794-1-2-E14 Sample length : 30cm Temp : 60 ±5°c Time : 24 hours	No filling compound drip

ORDER INFOMATION

PRODUCT	PART NUMBER
FIBER AIR BLOWING MICRO CABLE 144 CORE	F-ML-ABMI9-144-SJ
FIBER AIR BLOWING MICRO CABLE 288 CORE	F-ML-ABMI9-288-SJ