

Optical Fiber Micro Module Duct Cable 12-144F 2700N

Cable Design

Micro-Module Optical Fiber Cable-Dielectric-Single Sheath-G.652D Fiber



- **Micro Module:** thermoplastic material, containing 12 fiber, with gel inside.
- **Reinforcement member:** Glass yarns.
- **Water penetration member:** Water blocking yarns
- **Strength member:** GFRP inside the outer sheath
- **Outer Sheath:** Black HDPE

Cable Specification

Cable Cores		12	24	48	72	96	144
No. of Module		1	2	4	6	8	12
Fiber Counts in Fiber		12					
Module- ϕ	mm	1.3					
Nominal Cable Diameter	mm	8.0	8.5	9.0	10.0	10.5	11.5
Nominal Cable Weight	Kg/km	56	61	67	80	88	103

Cable Application

Temperature Range		Minimum Bend Radius	
Transportation & Storage	-25~+70°C	Load	25×D
Operation	-25~+60°C	Unload	12.5×D

Main Mechanical and Environmental Characteristic

Test	Test Standard	Specified Value	Acceptance Criteria
Tensile	IEC 60794-1-2-E1	2700N, 10 min	$\Delta\alpha$ reversible, fiber strains \leq 0.60%
Crush	IEC 60794-1-2-E3	2000N/10cm, 1 min	$\Delta\alpha$ reversible, no damage
Impact	IEC 60794-1-2-E4	3J, R=300mm, 3 points	$\Delta\alpha$ reversible, no damage
Repeated Bending	IEC 60794-1-2-E6	R=20D, 40N, 25 cycles	$\Delta\alpha$ reversible, no damage
Torsion	IEC 60794-1-2-E7	40N, 5 cycles, +/-180°	$\Delta\alpha$ reversible, no damage
Temperature Cycling	IEC 60794-1-2-F1	-20~+60°C, 2 cycles,	$\Delta\alpha$ reversible, no damage
Water Penetration	IEC 60794-1-2-F5	3m sample, 1m height, 24h	No water leakage

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Cabled Fiber Performance (G.652D)

Characteristics		Acceptance Value
Attenuation	@1310nm	≤0.35dB/km
	@1383nm	≤0.34dB/km
	@1550nm	≤0.21dB/km
	@1625nm	≤0.23dB/km
Mode Field Diameter	@1310nm	9.2±0.4 μm
	@1550nm	10.4±0.5 μm
Dispersion	@1300 +30/-15nm	≤3.0ps/(nm·km)
	@1550nm	≤18ps/(nm·km)
	@1625nm	≤22ps/(nm·km)
Zero-Dispersion wavelength		1302nm~1322nm
Zero-Dispersion slope		≤0.092ps/(nm ² ·km)
Cable cutoff wavelength λ _{CC} (nm)		≤1260nm
Cladding diameter		125±0.7μm
Cladding non-circularity		≤0.7%
Core/cladding concentricity error		≤0.5μm
Proof stress		≥0.69GPa(100kpsi)
Dynamic stress corrosion susceptibility parameter (typical value)		≥20

Fiber and Tube Color

Color Identification of Fiber

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

Color Identification of Tube

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

Sheath Marking, Delivery Length

The outer sheath is marked in 1 meter intervals as follows:

In Accordance with Custom's Requirement

Standard delivery length will be 2 km with -1+3% tolerance.