

Optical Fiber Duct Cable 12FO 1500N

Cable Design

Central Loose tube-Dielectric-Single Sheath- G.652DFiber



- **Central loose tube:** Loose tube ,filled with a suitable water tightness compound, containing 12G.652Dfibers.
- **Laminated Glass yarns:** reinforcement members
- **Ripcord:** 1 ripcords under outer sheath.
- **Outer Sheath:** Black HDPE

Cable Specification

Cable Cores		12
No. of Fibers		12
Tube- Φ	mm	3.0
The Thickness of outer sheath	mm	1.2
Max. Cable Diameter	mm	6.4
Nominal Cable Weight	Kg/km	35

Cable Application

Temperature Range		Minimum Bend Radius	
Transportation & Storage	-30~+70°C	Load	20×D
Operation	-30~+70°C	Unload	10×D

Main Mechanical and Environmental Characteristic

Test	Test Standard	Specified Value	Acceptance Criteria
Tensile	IEC 60794-1-2-E1	1500N, 1min	$\Delta\alpha$ reversible, fiber strain \leq 0.6%
Crush	IEC 60794-1-2-E3	1000N, 1min, 3times	$\Delta\alpha$ reversible, no damage
Impact	IEC 60794-1-2-E4	10J, R=300mm	$\Delta\alpha$ reversible, no damage
Repeated Bending	IEC 60794-1-2-E6	R=20D, 100N, 25cycles	$\Delta\alpha$ reversible, no damage
Torsion	IEC 60794-1-2-E7	100N, 5cycles, +/-180°	$\Delta\alpha$ reversible, no damage
Temperature Cycling	IEC 60794-1-2-F1	-30~+70°C, 2cyces, 8h	$\Delta\alpha\leq$ 0.1dB/km, no damage

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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)
	@1300 +60/-40nm	≤12ps/(nm·km)
	@1550 +30/-70nm	≤19ps/(nm·km)
Zero-Dispersion wavelength		1300nm~1324nm
Cable cutoff wavelength λ_{cc} (nm)		≤1270nm
Cladding diameter		125±1.0μm
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 & 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
Color	Natural

Sheath Marking

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

In Accordance with Custom's Requirement

Delivery Length

Standard delivery length will be 6km.