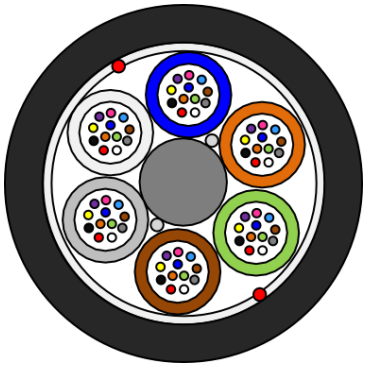
Optical Fiber Duct Cable A-DQ(ZN)2Y 1800N

Cable Design

Buffer Tube Optical Fiber Cable-Dielectric-Dry Core-G.652D Fiber



- **Central Strain-support Element (CE):** glass fiber reinforced plastic rod (FRP), with PE sheath covering when needed.
- **Buffer Tube:** PBT plastic material, containing 12 fibers and filled with a suitable water tightness compound.
- **Filler Element**s: Nature PP plastic rods, when needed.
- **Stranding:** loose tubes (and fillers), SZ stranded around the CE.
- **Longitudinal Water Tightness:** dry core with water swellable elements.
- **Ripcord(s):** 2 polyester ripcords under sheath.
- **Outer Sheath:** Black HDPE.

Cable Specification

Cable Cores		24	48	72	96	144
No. of Tubes		2	4	6	8	12
No. of Fillers		4	2	0	0	0
Fiber Counts in Tube		12				
Tube/Filler- Φ	mm	2.0				
CE- Φ	mm	2.1			2.5	3.0
Coated CE- Φ	mm	/			3.5	6.3
Thickness of Outer PE	mm	1.5				
Nom. Cable Diameter	mm	9.6			11.0	13.8
Nom. Cable Weight	Kg/k	71			93	147
Tensile Strength (T_M)	N	180				2700

Cable Application

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

Main Mechanical and Environmental Characteristic

Test	Test Standard	Specified Value	Acceptance Criteria
Tensile	IEC 60794-1-2-E1	T_M, 10min	△α reversible, fiber strain≤0.60%
Crush	IEC 60794-1-2-E3	2000N/10cm, 1min	△α reversible, no damage
Impact	IEC 60794-1-2-E4	10J, R=300mm	△α reversible, no damage
Repeated Bending	IEC 60794-1-2-E6	R=20D, 100N, 25cycles	△α reversible, no damage
Torsion	IEC 60794-1-2-E7	100N, 5cycles, +/-180^0	△α reversible, no damage
Temperature Cycling	IEC 60794-1-2-F1	-30~+70℃	△α reversible, no damage
Water Penetration	IEC 60794-1-2-F5	3m sample, 1m height,	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. 5μm
Dispersion	@1300 +30/-15nm	≤3.5ps/(nm·km)
	@1550nm	≤18ps/(nm·km)
	@1625nm	≤22ps/(nm·km)
Zero-Dispersion wavelength		1300nm～1324nm
Zero-Dispersion slope		≤0.092ps/(nm^2·km)
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

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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.