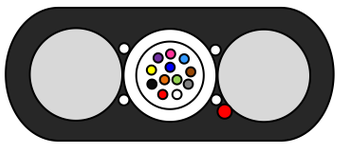
Flat Unitube Cable Specification

Cable Design

Drop Cable-GFRP Reinforcing-Dielectric-Dry Core-G.652D Fiber



- **Loose Tube:** PBT plastic material, containing 12 fibers and filled with a suitable water tightness compound.
- **FRP:** additional strength member.
- **Longitudinal Water Tightness:** dry core with water swellable elements.
- **Outer Sheath:** Black HDPE.

Cable Specification

Cable Cores		12
FRP		2×2.0mm
Loose Tube Diameter	mm	2.0
Thickness of PE Sheath	mm	1.0
Nominal Cable Diameter	mm	7.7×3.8
Nominal Cable Weight	Kg/km	36

Cable Application

Temperature Range		Minimum Bend Radius	
Transportation & Storage	-40~+70℃	Load	20×D
Operation	-40~+70℃	Unload	10×D

Main Mechanical and Environmental Characteristics

Test	Test Standard	Specified Value	Acceptance Criteria
Tensile	IEC 60794-1-2-E1	1000N, 1min	△α≤0.1dB, no damage
Crush	IEC 60794-1-2-E3	3000N/10cm, 1min, 3times	△α≤0.1dB, no damage
Impact	IEC 60794-1-2-E4	20J, R=300mm, 3impacts	△α≤0.1dB, no damage
Repeated Bending	IEC 60794-1-2-E6	R=20D, 20N, 20cycles	△α≤0.1dB, no damage
Temperature Cycling	IEC 60794-1-2-F1	-40~+70℃, 2cycles, 8h	△α≤0.1dB/km, no damage

Fiber & Tube Color

Color Identification of Fiber

Number	1	2	3	4	5	6	7	8	9	10	11	12
Color	Red	Green	Blue	White	Violet	Orange	Grey	Yellow	Brown	Pink	Black	Aqua

Color Identification of Tube

Number	1	2
Color	Nature	Red

Cabled Fiber Performance (G.652D)

Characteristics		Acceptance Value
Attenuation	@1310nm	≤0.35dB/km
	@1550nm	≤0.21dB/km
Mode Field Diameter	@1310nm	9.2±0.4μm
	@1550nm	10.4±0.5μm
Dispersion	@1300 +30/-15nm	≤3.5ps/(nm·km)
	@1550nm	≤18.0ps/(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)		≤1260nm
Cladding diameter		125±1.0μm
Cladding non-circularity		≤0.8%
Core/cladding concentricity error		≤0.6μm
Fiber diameter with coating (uncolored)		245±10μm
Cladding/coating concentricity error		≤12.0μm
Proof stress		≥0.69GPa(100kpsi)
Dynamic stress corrosion susceptibility parameter (typical value)		≥20

Sheath Marking

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

According to customer's requirement

Delivery Lengths

Standard delivery length will be 2km or 4km with -1%/+3% tolerance.