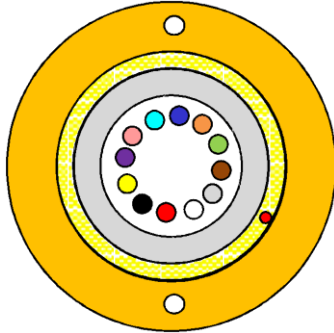


## Cable Specification

### Cable Design

#### Central Loose tube-Dielectric-Single Sheath- G.652D Fiber



**Central loose tube:** Loose tube , filled with a suitable water tightness compound, containing 2/4/8/12 fibers.

**Laminated Glass yarns:** reinforcement members

**Ripcord:** 1 ripcord under outer sheath.

**FRP Rod:** additional strength member

**Outer Sheath:** Orange HDPE

### Cable Specification

Cable Cores		2	4	8	12
No. of Fibers		2	4	8	12
Tube- $\Phi$	mm	2.1			
FRP- $\Phi$	mm	0.8			
The Thickness of outer sheath	mm	1.2			
Nominal. Cable Diameter	mm	$5.3 \pm 0.3$			
Nominal Cable Weight	Kg/km	24			

### 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 Characteristics

Test	Test Standard	Specified Value	Acceptance Criteria
Tensile	IEC 60794-1-2-E1	1200N, 5min	$\Delta\alpha$ reversible, fiber strain $\leq$ 0.6%
Crush	IEC 60794-1-2-E3	3000N, 1min, 3times	$\Delta\alpha$ reversible, no damage
Impact	IEC 60794-1-2-E4	5J, R=300mm, 3times	$\Delta\alpha$ reversible, no damage
Repeated Bending	IEC 60794-1-2-E6	R=20D, 100N, 100cycles	$\Delta\alpha$ 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

## Fiber & Tube Color

### Color Identification of Fiber

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

\* if the color number is more than 12, the tube color code will be repeated again.

### Color Identification of Tube

Number	1
Color	Natural

## Cabled Fiber Performance (G.652D)

Characteristics		Acceptance Value
Attenuation	@1310nm	$\leq 0.35\text{dB/km}$
	@1550nm	$\leq 0.22\text{dB/km}$
	@1625nm	$\leq 0.24\text{dB/km}$
Mode Field Diameter	@1310nm	$9.2\pm 0.4\mu\text{m}$
Mode Field Diameter	@1550nm	$10.4\pm 0.5\mu\text{m}$
Dispersion	@1300 +30/-15nm	$\leq 3.5\text{ps}/(\text{nm}\cdot\text{km})$
	@1550nm	$\leq 18\text{ps}/(\text{nm}\cdot\text{km})$
	@1625nm	$\leq 22\text{ps}/(\text{nm}\cdot\text{km})$
PMD	Max. for fiber Link	$\leq 0.06\text{ps}/\text{km}^{1/2}$
Zero-Dispersion Wavelength		1300nm ~ 1324nm
Zero-Dispersion Slope		$\leq 0.092\text{ps}/(\text{nm}^2\cdot\text{km})$
Cable Cutoff Wavelength $\lambda_{cc}(\text{nm})$		$\leq 1260\text{nm}$
Cladding Diameter		$125\pm 0.7\mu\text{m}$
Cladding Non-circularity		$\leq 0.7\%$
Core/Cladding Concentricity Error		$\leq 0.5\mu\text{m}$
Proof Test		$\geq 0.69\text{GPa}$ (100kpsi)
Dynamic Fatigue		$\geq 20$

## Sheath Marking

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

**According to customer's requirement**

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## Delivery Lengths

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