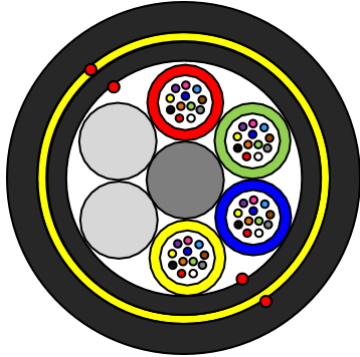


# ADSS Optical Fiber Cable – 48F/8kN

## Cable Design

### Loose Tube Optical Fiber Cable- Non-Armored -Dielectric-Dry Core-G.652D Fiber



- **Central Strength Member (CSM):** glass fiber reinforced plastic rod (FRP), with PE sheath covering when needed.
- **Loose Tube:** PBT plastic material, containing 12 fibers and filled with a suitable water tightness compound.
- **Filler Elements:** nature PP plastic rods, when needed.
- **Stranding:** loose tubes (and fillers), SZ stranded around the CSM.
- **Longitudinal Water Tightness:** dry core with water swellable elements.
- **Inner Sheath:** Black PE
- **Aramid yarn:** additional strength member
- **Ripcord(s):** 2 polyester ripcords under sheath.
- **Outer Sheath:** Black HDPE

## Cable Specification

<b>Cable Cores</b>		<b>48</b>
No. of Tubes		4
Fiber Counts in Tube		12
Tube/Filler- $\Phi$	mm	2.4
CSM- $\Phi$	mm	2.5
Thickness of Inner PE Sheath	mm	0.8
Thickness of Outer PE Sheath	mm	1.8
Nominal Cable Diameter	mm	13.5
Nominal Cable Weight	Kg/km	141
MAT	N	8000

## Cable Application

Temperature Range		Minimum Bend Radius	
Transportation & Storage	-25~+70°C	Load	20×D
Operation	-25~+70°C	Unload	10×D

## Main Mechanical and Environmental Characteristic

Test	Test Standard	Specified Value	Acceptance Criteria
Tensile	IEC 60794-1-2-E1	MAT, 5min	$\Delta\alpha$ reversible, fiber
Crush	IEC 60794-1-2-E3	2000N/10cm, 5min	$\Delta\alpha$ reversible, no damage
Repeated Bending	IEC 60794-1-2-E6	R=20D, 250N, 20cycles	$\Delta\alpha$ reversible, no damage
Impact	IEC 60794-1-2-E4	3J, R=300mm, 3times	$\Delta\alpha$ reversible, no damage
Bending	IEC 60794-1-2-E6	150N, 20cycles, +/-90 <sup>0</sup>	$\Delta\alpha$ reversible, no damage
Torsion	IEC 60794-1-2-E7	1m, 10cycles, +/-180 <sup>0</sup>	$\Delta\alpha$ reversible, no damage
Temperature Cycling	IEC 60794-1-2-F1	-25°C~+70°C, 2cycles	$\Delta\alpha\leq 0.05$ dB/km, no damage
Water Penetration	IEC 60794-1-2-F5	3m cable, 1m height, 24h	No water leakage

# ADSS Optical Fiber Cable – 48F/8kN

## 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	≤3.5ps/(nm·km)
	@1550nm	≤18ps/(nm·km)
	@1625nm	≤22ps/(nm·km)
Zero-Dispersion wavelength		1300nm ~ 1324nm
Cable cutoff wavelength $\lambda_{cc}$ (nm)		≤1270nm
Cladding diameter		125±1.0μm
Cladding non-circularity		≤0.08%
Core/cladding concentricity error		≤0.6μm
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	2	3	4	5	6
Color	Red	Green	Yellow	Blue	Brown	White

## 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 4 m. with -1/+3 tolerance