

# Optical Fiber Cable 12 core Steel

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## Variants

6MM (Coil) 6MM( Drum)

## Details

# 12 Core Optical Fiber Cable

## Fiber Color Code

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

## Loose Tube & Filler Rod Color Code

Color Code for Loose Tube (LT) & Filler Rod (FR)		
12 Core	Element	LT

## Cable Structure & Parameters

Cable Structure & Parameters			
Optical Fiber	Core	—	12
Loose Tube	Material	—	PBT
	Diameter	mm	1.9
Strength Member	Material #1	—	Steel
	Diameter	mm	0.8
	Material #2	—	2400D Yarn
Sheath	Material	—	MDPE
	Diameter	mm (±0.3)	6.2
Mechanical	Tension	N	400 / 1000
	Crush	N/100mm	300 / 1000

## Fiber Properties (ITU-T G.652D)

Fiber Properties (ITU-T G.652D)	
Fiber Type	Single mode
Fiber Material	Doped silica
Attenuation Coefficient	@1310nm ? 0.36 dB/km, @1383nm ? 0.32 dB/km, @1550nm ? 0.22 dB/km, @1625nm ? 0.30 dB/km
Point Discontinuity	? 0.05 dB
Cable Cut-off Wavelength	? 1260 nm
Zero-dispersion Wavelength	1300 ~ 1324 nm
Zero-dispersion Slope	? 0.093 ps/(nm <sup>2</sup> ·km)

Chromatic Dispersion	@1288~1339nm ? 3.5 ps/(nm·km), @1271~1360nm ? 5.3 ps/(nm·km), @1550nm ? 18 ps/(nm·km), @1625nm ? 22 ps/(nm·km)
PMDQ (Quadrature Average)	? 0.2 ps/km <sup>1/2</sup>
Mode Field Diameter @1310nm	9.2 ± 0.4 μm
Core / Clad Concentricity Error	? 0.5 μm
Cladding Diameter	125.0 ± 0.7 μm
Cladding Non-circularity	? 1.0%
Primary Coating Diameter	245 ± 10 μm
Proof Test Level	100 kpsi (=0.69 GPa), 1%
Temperature Dependence (0°C to +70°C)	? 0.1 dB/km @1310nm & 1550nm

## Optical Cable Characteristics

Mechanical & Environmental Characteristics	
Cable Bending Radius	10 × cable diameter (during operation), 20 × cable diameter (during installation)
Operating Temperature Range	-40°C to +60°C
Storage / Transport Temperature Range	-50°C to +70°C
Installation Temperature Range	-20°C to +50°C

## Packing & Marking

Packing
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Drum Type / Coil Type	Wooden drum suitable for long distance shipment / Coil type easy for shipment
Protection	Covered by plastic buffer sheet and sealed by strong wooden battens
Testing Reserve	At least 1 m of inside cable end reserved for testing
Standard Drum / Coil Length	2000m $\pm$ 5%
Permitted Single Length	Not less than 90% of standard length per drum, for quantity not exceeding 10% of total supply
Total Quantity	At least the ordered quantity