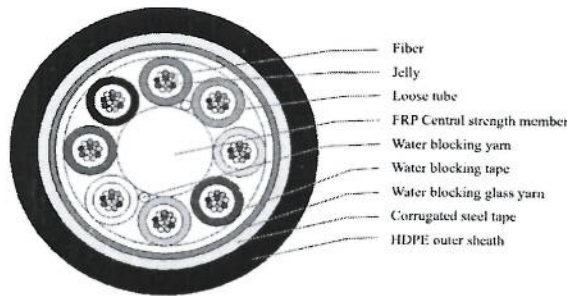


Optical Specifications Supply of Original Corning Fibre Optic Cable

Construction Parameters	
Max. no. of the fiber per tube	12
Fiber Type	(Lite Loose Tube, Gel-Free, Single-Jacket, Single-Armored Cable, SMF-28 ULL Optical Fiber With Advanced Bend Specification)
Outer jacket	Black
Tube	Gel-Filled PBT buffer tube
Color Coding of Loose Tubes & Fibers color code	Blue, Orange, Green, Brown, Grey, White, Red, Black, Yellow, Violet, Pink, Aqua
Tube filling compound	Thixotropic Jelly Compound
Central strength member Diameter	FRP rod & 2.9mm± 10%
Diameter of tube	1.7mm± 10%
Cable Diameter	10.9mm± 10%
Core wrapping	Water-swellaable tape
Peripheral strength members	Water-swellaable glass yarns
Armoring	Corrugated steel tape, longitudinally under jacket
Outer jacket	UV resistant black HDPE
Outer jacket thickness	1.5 mm
On the outer layer of cable,	Name of Afghan Telecom, Manufacturer Cable Type, Manufacturing year, Length marking in meter should be mentioned.
The length of cable.	6 km.



Compliant to ITU-T G.654.C and Maximum Attenuation			
Wavelength (nm)		Maximum Value*(dB/km)	
1550		≤ 0.16	
1625		≤ 0.18	
Macro bend Loss			
Mandrel Radius (mm)	Number of Turns	Wavelength(nm)	Induced Attenuation*dB
10	1	1550	≤ 0.75
10	1	1625	≤ 1.5
15	10	1550	≤ 0.25
15	10	1625	≤ 1.0
Point Discontinuity			
Wavelength(nm)		Point Discontinuity (dB)	



1550	≤ 0.05	
Cable Cutoff Wavelength (λ_{cc})		
λ_{cc}	≤ 1520 nm	
Mode-Field Diameter		
Wavelength(nm)	MFD(μ m)	
1550	10.5 ± 0.5	
Dispersion		
Wavelength(nm)	Dispersion Value[ps/(nm*km)]	
1550	≤ 18	
1625	≤ 22	
Polarization Mode Dispersion (PMD)		
Value (ps/ \sqrt km)		
PMD Link Design Value	$\leq 0.04^*$	
Maximum Individual Fiber PMD	≤ 0.1	
Dimensional Specifications		
Glass Geometry		
Fiber Curl	≥ 4.0 m radius of curvature	
Cladding Diameter	125.0 ± 0.7 μ m	
Core-Clad Concentricity	≤ 0.5 μ m	
Cladding Non-Circularity	0.7%	
Coating Geometry		
	Standard Offering	Smaller Coating Diameter Option
Coating Diameter	242 ± 5 μ m	200 ± 5 μ m
Coating-Cladding Concentricity	< 12 μ m	< 10 μ m
Environmental Specifications		
Environmental Test	Test Condition	Induced Attenuation 1310 nm, 1550 nm & 1625 nm (dB/km)
Temperature Dependence	-60°C to $+85^{\circ}\text{C}^*$	≤ 0.05
Temperature Humidity Cycling	-10°C to $+85^{\circ}\text{C}$ up to 98% RH	≤ 0.05
Water Immersion	$23^{\circ}\text{C} \pm 2^{\circ}\text{C}$	≤ 0.05
Heat Aging	$85^{\circ}\text{C} \pm 2^{\circ}\text{C}$	≤ 0.05
Damp Heat	85°C at 85% RH	≤ 0.05
Performance Characterization		
Core Diameter	8.2 μ m	
Effective Group Index of Refraction (neff)	1310 nm: 1.4606 1550 nm: 1.4620	
Fatigue Resistance Parameter (nd)	20	
Coating Strip Force	Dry: 0.6 lbs. (3 N) Wet, 14-day room temperature: 0.6 lbs. (3 N)	
Rayleigh Backscatter Coefficient (for 1 ns Pulse Width)	1310 nm: -77 dB 1550 nm: -82 dB	

