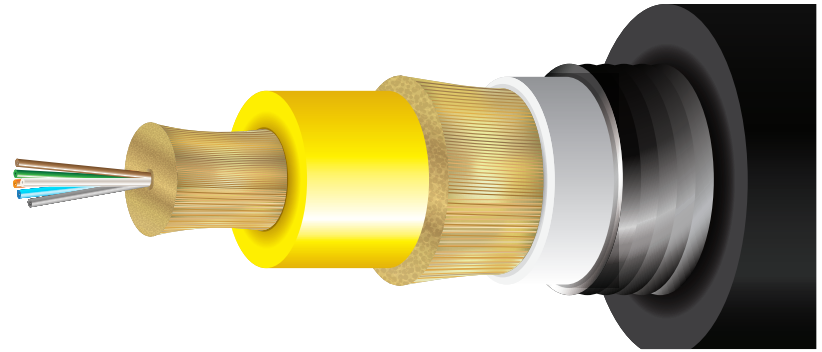


Cleerline BendSafe® Armored Direct Burial Distribution fiber cable consists of a PE overall jacket with 6 - 12 fibers and water-blocking aramid yarns.

The core is protected by a corrugated armored steel tube that offers easy installation and high crush resistance. A polyethylene, UV-resistant jacket protects the cable, allowing direct burial.

Cleerline BendSafe® armored single-mode is fully compatible with all common connector systems for standard 9/125 Single-mode fiber.

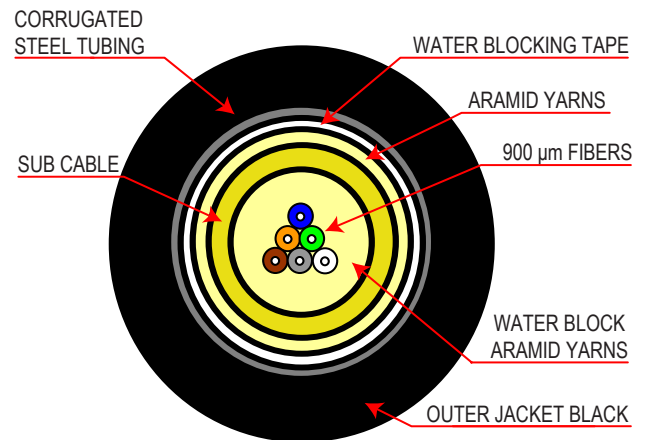
This product offers bend performance beyond EIA SP-2840A, as well as superior crush resistance and superior pull.



**3D VIEW**

**FEATURES AND BENEFITS**

- BendSafe® Dynamic Fatigue rating Nd = 27
- High mechanical strength
- BendSafe® 900 µm tight buffered fibers
- Compatible with common connector systems for 9/125 single-mode.
- Manufactured to exact tolerances and specifications
- Ultra low attenuation on tight bend radius



**TYPICAL CROSS SECTION**

**APPLICATIONS**

- Outdoor/OSP Direct Burial applications
- Installations requiring high crush resistance
- External environment harsh conditions exposure

PART NUMBER	FIBERS	DESCRIPTION	TYPE	OUTER DIAMETER	WEIGHT (LB / 1000 FT)
TD006S2D9BN	6 Fibers	6 Strand BendSafe® - 1000 ft Spool	PE-UV	10 mm	67
TD006S2D9BN-B	6 Fibers	6 Strand BendSafe® - Cut to Order	PE-UV	10 mm	67
TD012S2D9BN	12 Fibers	12 Strand BendSafe® - 1000 ft Spool	PE-UV	11.3 mm	85
TD012S2D9BN-B	12 Fibers	12 Strand BendSafe® - Cut to Order	PE-UV	11.3 mm	85

FIBER	
Fibers	6 & 12
Type	9/125 single-mode OS2
Color Coding	Per TIA/EIA 598C

JACKET	
Type	PE-UV, moisture resistant (Outdoor/OSP)
Color	Black
Outer Diameter	Varies by Part Number
Markings	Sequential Foot Markings
Strength Member	Aramid + water blocking yarns

PHYSICAL DATA	
Storage Temperature Range	-20 °C to +60 °C
Installation Temperature Range	-20 °C to +60 °C
Operating Temperature Range	-20 °C to +60 °C
Max Tensile Load, Instalation	2700 N (607 lbf)
Max Tensile Load, Long Term	890 N (200 lbf)
Min. Bend Radius, Unloaded	15 x O.D.
Min. Bend Radius, Loaded	20 x O.D.
Crush Resistance	440 N/cm
Impact Resistance (min)	25 Impacts
Flexing ± 90° (min)	25 Cycles
Cable Package	Length varies by customer request, spooled
Rating	Outdoor/OSP
Fatigue Resistance Parameter @23 °C, 41% RH	= 27 Nd

ENVIRONMENTAL CHARACTERISTICS	
Temperature Cycling Test @ 1310 nm and 1550 nm -60 °C to +85 °C	≤ 0.05 dB/km
Temperature and Humidity Cycling Test @ 1310 nm and 1550 nm -10 °C to +85 °C, 90% RH	≤ 0.05 dB/km
Damp Heat Dependence Test @ 1310 nm and 1550 nm +85 °C, 85% RH for 30 days	≤ 0.05 dB/km
Dry Heat Dependence Test @ 1310 nm and 1550 nm +85 °C for 30 days	≤ 0.05 dB/km
Watersoak Dependence Test @ 1310 nm and 1550 nm +20 °C for 30 days	≤ 0.05 dB/km

BACKSCATTER CHARACTERISTICS		
Attenuation Directional Uniformity	≤ 0.03 dB/km	
Attenuation Uniformity	≤ 0.05 dB/km	
Group Index of Refraction	1310 nm	1.467
	1550 nm	1.468

PHYSICAL CHARACTERISTICS		
Core / Cladding Concentricity Error	≤ 0.5 μm	
Cladding Diameter	124.5 ± 0.7 μm	
Cladding Non-Circularity Error	≤ 1.0%	
UV Acrylate Coating / Cladding Concentricity Error	≤ 6.0 μm	
Coating Strip Force (typical)	≥ 130 g	
Fiber Curl	≥ 4 m	
Proof Test (screen level)	0.69 (100) Gpa (Kpsi)	
Bend Enduced Attenuation	1 turn around a mandrel 7.5 mm radius @ 1550 nm/1625 nm	≤ 0.5 / 1.0 dB
	1 turn around a mandrel 10 mm radius @ 1550 nm/1625 nm	≤ 0.1 / 0.2 dB
	10 turn around a mandrel 15 mm radius @ 1550 nm/1625 nm	≤ 0.03 / 0.1 dB
Length (typical)	4.0 ~ 50.4 km	

OPTICAL CHARACTERISTICS		
Attenuation Coefficient	1310 nm	≤ 0.35 dB/km
	1383 nm H2 aged IEC60793-2-50 type B.1.3	≤ 0.31 dB/km
	1550 nm	≤ 0.21 dB/km
	1625 nm	≤ 0.23 dB/km
Mode Field Diameter (MFD) at Wavelength	1310 nm	8.6 ± 0.4 μm
	1550 nm	9.7 ± 0.5 μm
Cut Off Wavelength (in cable) (λCC)	< 1260 nm	

**COMPLIANCE**  
 BendSafe® conforms to the requirement of ITU-T recommendations G.657 A2, G.657 B2, and G.652 D, and the IEC International Standard 60793-2-50 type B1.3 and B.6 A&B Optical Fiber