

Cleerline BendSafe® - Traditional Stronger BendSafe® 2 strand 900 µm tight buffered fiber is a distribution style cable with an overall riser or plenum jacket.

BendSafe® distribution is ideal for inter-building or intra-building data communication backbones.

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

Cleerline BendSafe® fibers provide the ultimate in reliable signal transfer in today's traditional fiber constructions.

FEATURES AND BENEFITS

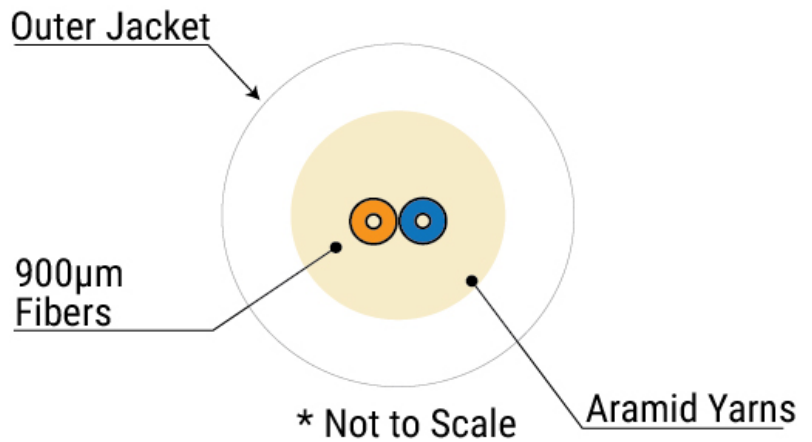
- BendSafe® Dynamic Fatigue rating Nd = 27
- High mechanical strength
- BendSafe® 900 µm tight buffered fibers
- Compatible with common connector systems for 9/125 single-mode.
- Manufactured to exact tolerances and specifications
- Ultra low attenuation on tight bend radius

APPLICATIONS

- Inter-/Intra-building voice or data communication
- Installation in ducts or underground conduit
- Fiber-to-the-desk (FTTD) / Fiber-to-the-Home (FTTH)
- UL listed type OFNP for installation in ducts, plenums and other spaces used as environmental air returns when installed in accordance with NEC article 770-51 (a) and 770-53(a)



3D VIEW



TYPICAL CROSS SECTION

PART NUMBER	FIBERS	FIBER TYPE	DESCRIPTION	TYPE RISER/PLENUM	OUTER DIAMETER	WEIGHT (LB / 1000 FT)
TN002S2D9WX	2 Fibers	OS2	2 Strand BendSafe® - 1000 ft Spool	X= R/P	4.3 mm	11
TN002S2D9WX-B	2 Fibers	OS2	2 Strand BendSafe® - Cut to Order	X= R/P	4.3 mm	11

FIBER	
Fibers	2
Type	9/125 Single-mode OS2
Color Coding	Per TIA/EIA 598C

JACKET	
Type	Riser Rated PVC (Indoor) Plenum Rated PVC + UV I/O
Color	White
Outer Diameter	4.3
Markings	Sequential Foot Markings
Strength Member	Aramid (Plenum + water blocking yarns)

PHYSICAL DATA		
Storage Temperature Range	Riser	Plenum
	-55 °C to +85 °C	-40 °C to +85 °C
Installation Temperature Range	0 °C to +75 °C	0 °C to +75 °C
Operating Temperature Range	-40 °C to +85 °C	-20 °C to +85 °C
Max Tensile Load, Installation	1405 N (315 lbf)	
Max Tensile Load, Long Term	455 N (102 lbf)	
Min. Bend Radius, Unloaded	10 x O.D.	
Min. Bend Radius, Loaded	20 x O.D.	
Crush Resistance	100 N/cm	
Impact Resistance (min)	25 Impacts	
Flexing ± 90° (min)	25 Cycles	
Cable Package	Length varies by customer request, spooled	
Rating	FT4 - Riser / FT6 - Plenum	
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

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) (λ _{CC})	< 1260 nm	

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

COMPLIANCE	
ETL Listed Type OFNR, CSA FT4, ICEA S-83-596 & OFNP, CSA FT6 / ICEA S-104-696. RoHS Compliant Directive 2011/65/EUSSF® conforms to the requirement of IEC 60793 A1a, ISO/IEC 11801 & ITU-T G.651.1 850 nm Laser-Optimized 9 µm core single-mode fiber.	