

# 9/125 SSF™ Single Mode + 18-2 AWG Copper Fiber + Power - Plenum Rated

Type: OS2, OFNP FT6, CMP



Easily transmit both data and power with Cleerline SSF™ Fiber + Power cable. Featuring a two fiber micro distribution Single Mode OS2 fiber optic cable in zipcord construction with one 2 conductor 18 AWG copper cable. This cable is plenum rated.

SSF™ Fiber + Power cable simplifies installation by allowing power and fiber optic cables to be installed simultaneously. Ideal for flexibility in installation, this cable is an excellent solution for high-quality data transmission and low voltage communication.

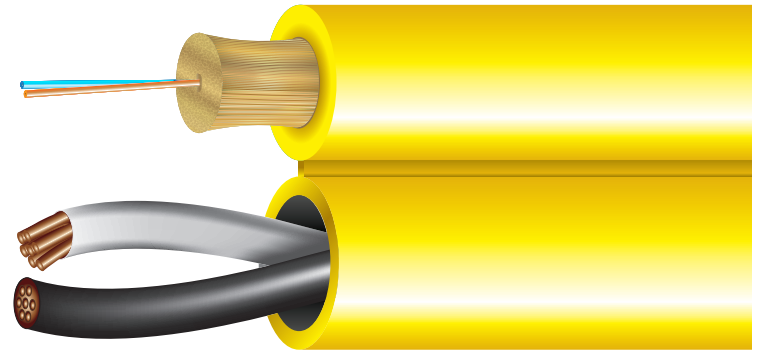
The included SSF™ fibers feature patented polymer SSF™ coating for ease of installation and increased strength. The fiber optic cable contains water-blocking aramid yarns.

## FEATURES AND BENEFITS

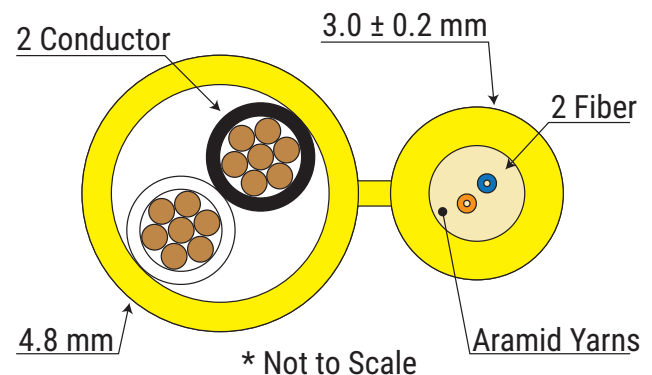
- High mechanical strength
- Superior fatigue and durability (nD = 30)
- Up to 10,000x the bend of traditional fiber
- Integral SSF™ coating provides glass protection
- Increased safety due to incredible bend insensitivity and durability
- Exclusive 250 µm Soft Peel acrylate

## APPLICATIONS

- Voice or data communications & video, flexibility in FTTH applications
- Low voltage communications
- Network and cameras requiring PoE



3D VIEW



TYPICAL CROSS SECTION

PART NUMBER	FIBERS	DESCRIPTION	TYPE	O.D.	WEIGHT (LB / 1000 FT)
218AWG2OS2MDP	2 Fibers	Fiber + Power OS2 - 1000 ft Spool	Plenum	8.4 mm	28
218AWG2OS2MDP-B	2 Fibers	Fiber + Power OS2 - Cut to Order	Plenum	8.4 mm	28

## CONSTRUCTION

FIBER	
Fiber / Copper Count	Simplex Fiber = 2 18-2 AWG Stranded Bare Copper
Type	9/125 Single Mode OS2
Coating	250 µm "Soft Peel" S-Type Coating (1 = Blue, 2 = Orange)
Color Coding	Per TIA/EIA 598

JACKET		
Type	Plenum Rated PVC, UV Resistant	
Color	Yellow, sequential footage markings	
Outer Diameter	8.4 mm	
Sub Diameter	Fiber	3.0 mm
	Copper	4.8 mm

### PHYSICAL DATA

Storage Temperature Range	-2°C to +60°C
Operating Temperature Range	-2°C to +60°C
Max Tensile Load (Installation)	95 N (21 lbf)
Max Tensile Load Long Term	25 N (5 lbf)
Min. Bend Radius, Unloaded	10 x O.D. (10 x 8.4 mm)
Min. Bend Radius, Loaded	20 x O.D. (20 x 8.4 mm)
Cable Outside Diameter, Nominal	8.4 mm
Cable Package	1000 ft / 304.8 m Reel *Or customer request, spooled
Rating	CMP/OFNP/FT6
OS2 Fibers, 3.0 mm O.D.	
Crush Resistance (TIA/EIA 455-41A)	100 kgf / mm
Impact Resistance (TIA/EIA 455-25B)	1500 impact Cycles
Flexing @ 90 degrees (TIA/EIA 455-104A)	2000 flexing cycles
18-2 AWG Copper	
Suggested Working Voltage	300 Volts, rms.
Conductor	18 AWG Stranded Bare Copper
Conductors	2 / C
Color	Black, Natural
Shield and Drain	None

### ENVIRONMENTAL CHARACTERISTICS (SSF™ FIBER)

Temperature Dependence, 1310 nm and 1550 nm Induced Attenuation -60°C to + 85°C	≤ 0.5 dB / km
Watersoak Dependence, 1310 nm and 1550 nm Induced Attenuation at 20°C for 30 days	≤ 0.5 dB / km
Damp Heat Dependence, 1310 nm and 1550 nm Induced Attenuation at 85°C, 85% R.H., 30 days	≤ 0.5 dB / km

### PHYSICAL CHARACTERISTICS (SSF™ FIBER)

Core / Hybrid Cladding Concentricity Error	≤ 0.5 μm	
Hybrid Cladding Diameter	125 ± 0.7 μm	
Hybrid Cladding Non-Circularity	≤ 1.0%	
Soft Peel Jacket Identifier	245 ± 10 μm	
Coating Strip Force	≤ 100 g	
Fiber Curl	≥ 2 m	
Proof Test	0.69 Gpa (100 kpsi)	
Dynamic Fatigue (n <sub>d</sub> ) 23°C, 41% R.H.	≥ 31.72	
Bend Induced Attenuation, 1550 nm	1 turn around 7.5 mm radius mandrel	≤ 0.5 dB
	10 turns around 15 mm radius mandrel	≤ 0.03 dB
Bend Induced Attenuation, 1625 nm	1 turn around 7.5 mm radius mandrel	≤ 1.0 dB
	10 turns around 15 mm radius mandrel	≤ 0.1 dB


### OPTICAL CHARACTERISTICS (SSF™ FIBER)

Attenuation Coefficient	1310 nm	≤ 0.35 dB/km
	1550 nm	≤ 0.21 dB/km
Mode Field Diameter	1310 nm	8.6 ± 0.4 μm
	1550 nm	9.7 ± 0.5 μm
Cable Cut-off Wavelength	≤ 1260 nm	
Zero Dispersion Wavelength	1300 nm - 1324 nm	
Zero Dispersion Slope	0.092 ps / (nm <sup>2</sup> · km)	

### BACKSCATTER CHARACTERISTICS (SSF™ FIBER)

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

### COMPLIANCE

NEC Article 800, C(ETL) US CMP/OFNP FT6	
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