Type: OS2, OFNP, OFNR, CPR LSZH, Type G.657.A2, G657.B2, G.652.D



Cleerline SSF<sup>TM</sup> Duplex cable is composed of two strands of SSF<sup>TM</sup> cable in zipcord style with an overall 3.0 mm Riser, Plenum, or CPR-rated LSZH jacket.

SSF™ Duplex is ideal for inter-building or intrabuilding data communication backbones. The cable's zipcord construction allows easy separation of the fiber strands if desired.

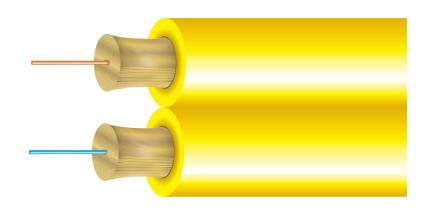
Cleerline SSF<sup>TM</sup> Duplex Single Mode cable is fully compatible with all common connector systems for standard 9/125 single mode fibers. The included SSF<sup>TM</sup> fibers provide extreme durability and strength, with up to 10,000 times the bend insensitivity of traditional fiber.

## FEATURES AND BENEFITS

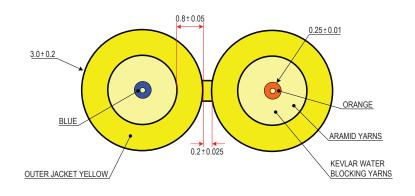
- Zipcord construction easy to separate strands
- High mechanical strength, superior fatigue (nD = 30)
- Compatible with common connector systems for 9/125 single mode fibers
- Up to 10,000x the bend longevity of traditional fiber
- Integral SSF™ coating provides glass protection
- Increased safety due to incredible bend insensitivity
- Exclusive 250 µm Soft Peel acrylate

## **APPLICATIONS**

- Inter-/Intra-building voice or data communication
- Installation in ducts or underground conduit
- Fiber-to-the-desk (FTTD) / Fiber-to-the-Home (FTTH)
- ETL 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   | DESCRIPTION                      | TYPE<br>Riser/Plenum/LSZH | 0.D.       | WEIGHT<br>(LB / 1000 FT) |
|---------------|----------|----------------------------------|---------------------------|------------|--------------------------|
| D29125SM0SX   | 2 Fibers | Duplex 9/125 SSF - 1000 ft Spool | X = R/P/L                 | 3.0 mm x 2 | 13.2                     |
| D29125SM0SX-B | 2 Fibers | Duplex 9/125 SSF - Cut to Order  | X= R/P/L                  | 3.0 mm x 2 | 13.2                     |

## CONSTRUCTION

| FIBER        |  |
|--------------|--|
| Fibers       | 2  |
| Туре         | 9/125 Single Mode OS2                                    |
| Coating      | 250 µm "Soft Peel" S-Type Coating (1 = Blue, 2 = Orange) |
| Color Coding | Per TIA/EIA 598C   |

| JACKET                             |  |  |
|------------------------------------|--|--|
| Туре                               | Riser Rated PVC (Indoor) / Plenum Rated PVC + UV I/O / CPR LSZH (Indoor/Outdoor) |  |
| Color                              | Yellow   |  |
| Outer Diameter 3.0 mm x 2 (6.2 mm) |  |  |
| Markings Sequential Foot Markings  |  |  |
| Strength Member                    | Kevlar (Plenum + water blocking yarns)   |  |



| PHYSICAL DATA                              |   |  |
|--|---|--|
| Storage Temperature Range                  | -40°C to +85°C                            |  |
| Operating Temperature Range                | -20°C to +75°C                            |  |
| Max Tensile Load (Installation)            | 1000 N (225 lbf)                          |  |
| Max Tensile Load Long Term                 | 500 N (112 lbf)                           |  |
| Min. Bend Radius, Unloaded                 | 1 x 0.D.                                  |  |
| Cable Outside Diameter, Nominal            | 3.0 mm x 2                                |  |
| Cable Package                              | 1000 ft Reel or customer request, spooled |  |
| Rating                                     | FT4 - Riser / FT6-Plenum /<br>CPR LSZH    |  |
| Crush Resistance (TIA/EIA 455-41A)         | 100 kgf / mm                              |  |
| Impact Resistance (TIA/EIA 455-25B)        | 1500 impact cycles                        |  |
| Flexing @ 90 degrees<br>(TIA/EIA 455-104A) | 2000 flexing cycles                       |  |

| <b>ENVIRONMENTAL CHARACTERISTICS</b>           | 3                           |
|--|-----------------------------|
| Temperature Dependence,<br>1310 nm and 1550 nm | $\leq 0.05 \text{ dB / km}$ |
| Induced Attenuation                            | -60°C to + 85°C             |
| Watersoak Dependence,<br>1310 nm and 1550 nm   | $\leq 0.05 \text{ dB / km}$ |
| Induced Attenuation at 20°C for 30 days        |                             |
| Damp Heat Dependence,<br>1310 nm and 1550 nm   | $\leq 0.05 \text{ dB / km}$ |
| Induced Attenuation at 85°C, 85% R.H., 30 days |                             |
| Dry Heat Dependence,<br>1310 nm and 1550 nm    | $\leq 0.05 \text{ dB / km}$ |
| Induced Attenuation at 85°C, 30 days           |                             |

| PHYSICAL CHARACTERISTI                        | CS                                   |                         |  |
|---|--------------------------------------|-------------------------|--|
| Core / Hybrid Cladding<br>Concentricity Error | ≤0.5 μm                              |                         |  |
| Hybrid Cladding Diameter                      | 125 ± 0.7 μm                         |                         |  |
| Hybrid Cladding Non-<br>Circularity Error     | ≤ 1.0%                               |                         |  |
| Soft Peel Jacket Identifier                   | $250 \pm 0.7 \mu \text{m}$           |                         |  |
| Coating Strip Force                           | 100 g                                |                         |  |
| Fiber Curl                                    | ≥ 2 m                                |                         |  |
| Proof Test                                    | 100 kpsi                             |                         |  |
| Dynamic Fatigue 23°C, 41% R.H.                | > 30 nD                              |                         |  |
| Bend Induced Attenuation,<br>1550 nm          | 1 turn around 10 mm radius           | $\leq 0.3 \; \text{dB}$ |  |
|   | 10 turns around 15 mm radius mandrel | $\leq 0.03 \text{ dB}$  |  |
| Bend Induced Attenuation,<br>1625 nm          | 1 turn around 10 mm radius           | ≤ 1.0 dB                |  |
|   | 10 turns around 15 mm radius mandrel | ≤ 0.2 dB                |  |

| OPTICAL CHARACTERISTICS    |                                 |                      |  |
|----------------------------|---------------------------------|----------------------|--|
| Attenuation Coefficient    | 1310 nm                         | $\leq 0.35 \; dB/km$ |  |
|                            | 1550 nm                         | $\leq$ 0.21 dB/km    |  |
| Mode Field Diameter        | 1310 nm                         | $8.6 \pm 0.4 \mu m$  |  |
|                            | 1550 nm                         | $9.7 \pm 0.5 \mu m$  |  |
| Cable Cut-off Wavelength   | ≤ 1260 nm                       |                      |  |
| Zero Dispersion Wavelength | 1310 nm - 1324 nm               |                      |  |
| Zero Dispersion Slope      | 0.092 ps / nm <sup>2</sup> · km |                      |  |

## COMPLIANCE

ETL Listed Type OFNR, CSA FT4, IECA S-83-596 & OFNP, CSA FT6 / IECA S-104-696. LSZH Listed CPR Cca-s1a, d1, a1. DoP Available on Request. RoHS Compliant Directive 2011/65/EU





| 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 |  |