

# COMPONENT SPECIFICATIONS

## 9/125 SSF™ Singlemode OS2, 3.0mm Jacketed Duplex Riser / Plenum I/O / LSZH Cables



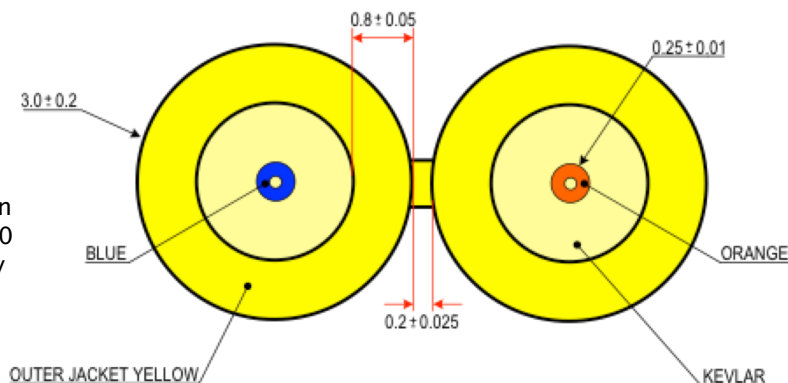
Type OS2, OFNP, OFNR, LSZH, Product Type G.657.A2, G657.B2, and G.652 .D

Cleerline SSF™ advanced optical glass fibers are much stronger, safer, and faster terminating than typical fibers. This duplex style cable provides the ultimate in durability and bend with ease of termination. SSF™ fibers are always protected at the glass level as a result of their integral polymeric coating, increasing both bend and tensile strength to unprecedented levels. Cleerline SSF™ fibers are compatible with all common connector systems on the market for standard 50/125 multimode and 9/125 Singlemode fibers.

### Features And Benefits:

- \* High mechanical strength and superior fatigue & durability
- \* Integral coating eliminates stripping, provides glass protection
- \* 10,000x the bend of standard fiber, Fatigue constant (Nd) > 30
- \* Increased safety factor due to the incredible bend insensitivity
- \* Glass fiber remains protected at all times from the elements
- \* Simplified termination process designed for ease of use
- \* Ultra low Attenuation loss on tight bend radius
- \* Exclusive 250um Soft peel jacket identifier

### Duplex Typical Cross Section



## CONSTRUCTION

### FIBER

Number of Fibers; Duplex = 2  
9/125 Singlemode Dry w/super-absorbant polymer  
250um "Soft Peel" coating (1 = Blue, 2 = Orange)  
Color Coding per TIA/EIA 568C

### JACKET

Riser Rated PVC / Plenum Rated PVC + UV I/O/ LSZH  
3.0mm unit diameter  
Yellow jacket = Singlemode fiber OS2  
Sequential footage markings  
Kevlar (Plenum/LSZH + water blocking yarns Indoor/Outdoor)

### PHYSICAL DATA

Storage Temperature Range = -40°C to +85 °C  
Operating Temperature Range = -20°C to +75 °C  
Max Tensile Load for Installation = 1000(225) N (lbf)  
Max Tensile Load Long term = 500(112) N (lbf)  
Min. Bend Radius, Unloaded = 1 x OD (1 x 3.0mm)  
Cable Outside Diameter, Nominal = 3.0mm x2 (6.2mm)  
Cable Package = 1000ft/304.8m Reel\*

\*Or customer request, spooled

Rating = FT4-Riser / FT6-Plenum / LSZH

Crush Resistance (TIA/EIA 455-41A) = 100 kgf/mm  
Impact Resistance (TIA/EIA 455-25B) = 1500 Impact cycles  
Flexing @ 90 degree (TIA/EIA 455-104A) = 2000 flexing cycles

### APPLICATIONS

Inter-building and intra-building voice or data communication backbones requiring 3.0mm jacket diameter. Install in ducts, underground conduits or aerial/lashed. Light weight ultra flexible design simplifies installation.  
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)

### ENVIRONMENTAL CHARACTERISTICS

Temperature Dependence at 1310 nm and 1550 nm ≤ 0.05 (db/km)  
Induced Attenuation - 40°C to +85°C  
Watersoak Dependence at 1310 nm and 1550 nm ≤ 0.05 (db/km)  
Induced Attenuation at 20°C for 30 days  
Damp Heat Dependence at 1310 nm and 1550 nm ≤ 0.05 (db/km)  
Induced Attenuation at 85°C, 85%R.H., 30 days  
Dry Heat Dependence at 850 nm and 1300 nm ≤ 0.05 (db/km)  
Induced Attenuation at 85°C., 30 days

## PART NUMBER

PART NUMBER	PART DESCRIPTION	FIBER COUNT	NOMINAL DIAMETER	CABLE WEIGHT	TOTAL WEIGHT
D29125SMOSR	Duplex Riser	2 Fiber/s	3.0mm x 2	13.2 lbs / 1000 9.0 kg / km	15.43 lbs 6.99 kg
D50125MOM3P	Duplex Plenum	2 Fiber/s	3.0mm x 2	13.2 lbs / 1000 9.0 kg / km	15.43 lbs 6.99 kg
D50125MOM3L	Duplex LSZH	2 Fiber/s	3.0mm x 2	13.2 lbs / 1000 9.0 kg / km	15.43 lbs 6.99 kg

### OPTICAL CHARACTERISTICS\*

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

### BACKSCATTER CHARACTERISTICS

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

### PHYSICAL CHARACTERISTICS

Core / Hybrid Cladding Concentricity Error ≤ 0.5 (µm)  
Hybrid Cladding Diameter 125 ± 0.7 (µm)  
Hybrid Cladding Non-Circularity Error ≤ 1.0 (%)  
Soft Peel Jacket Identifier Diameter 250 ± 0.7 (µm)  
Coating Strip Force ≤ 100 (g)  
Fiber Curl ≤ 2 (m)  
Dynamic Fatigue Constant (Nd) > 30  
Proof Test 100 (kpsi)  
Bend Induced Attenuation  
1550nm 1 turn 10mm radius ≤ 0.3 (dB)  
10 turns around a mandrel of 15 mm radius ≤ 0.03 (dB)  
1625nm 1 turn 10mm radius ≤ 1.0 (dB)  
10 turns around a mandrel of 15 mm radius ≤ 0.2 (dB)

### COMPLIANCE

ETL Listed Type OFNR, CSA FT4, IECA S-83-596 & OFNP, CSA FT6, or LSZH-non ETL/ IECA S-104-696. GR-409  
RoHS Compliant Directive 2011/65/EU

