

## COMPONENT SPECIFICATIONS

### 50/125 SSF™ Multimode OM3, 3.0mm Jacketed Duplex Riser / Plenum I/O / LSZH Cables

Type OM3, OFNR, CSA FT4 / OFNP, CSA FT6 / LSZH



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

## CONSTRUCTION

#### FIBER

Number of Fibers; Duplex = 2  
50/125 Multimode OM3  
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 x 2 unit diameter w/strip peel  
Aqua jacket = OM3, 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 Long Load 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

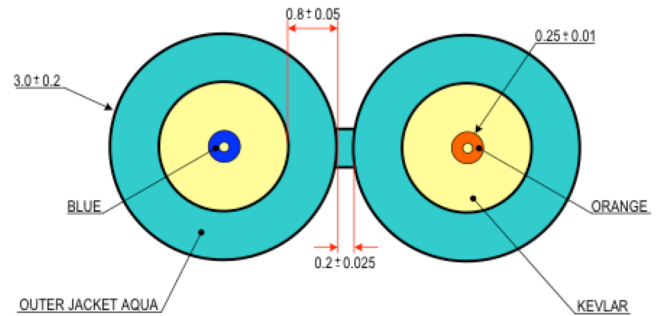
#### APPLICATIONS

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 850 nm and 1300 nm  $\leq 0.5$  (dB/km)  
Induced Attenuation - 40°C to +85°C  
Water soaks Dependence at 850nm and 1300 nm  $\leq 0.5$  (dB/km)  
Induced Attenuation at 23°C for 30 days  
Damp Heat Dependence at 850 nm and 1300 nm  $\leq 0.5$  (dB/km)  
Induced Attenuation at 85°C, 85%R.H., 30 days  
Dry Heat Dependence at 850 nm and 1300 nm  $\leq 0.5$  (dB/km)  
Induced Attenuation at 85°C, 30 days

### Duplex Typical Cross Section



## PART NUMBERS

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

SSF™ conforms to the requirement of IEC 60793 A1a, ISO/IEC 11801 & ITU-T G.651.1. 850 nm Laser-Optimized 50  $\mu$ m-core multimode fiber for 10 Gb/s & above applications

#### OPTICAL CHARACTERISTICS\*

Attenuation Coefficient	850 nm	$\leq 3.0$ (dB/km)
	1300 nm	$\leq 1.0$ (dB/km)
Numerical Aperture		$0.200 \pm 0.015$
Overfilled Modal Bandwidth	850 nm	$\geq 1500$ (MHz · km)
	1300 nm	$\geq 500$ (MHz · km)
High Performance EMB	850nm	$\geq 2000$ (MHz · km)

#### BACKSCATTER CHARACTERISTICS

Attenuation Directional Uniformity		$\leq 0.05$ (dB/km)
Attenuation Uniformity		$\leq 0.05$ (dB)
Group Index of Refraction	850 nm	1.481
	1300 nm	1.476

#### PHYSICAL CHARACTERISTICS

Core Diameter	$50.0 \pm 2.5(\mu\text{m})$
Core Non-circularity	$\leq 6$ (%)
Core / Hybrid Cladding Concentricity Error	$\leq 3.0 (\mu\text{m})$
Hybrid Cladding Diameter	$125 \pm 0.7 (\mu\text{m})$
Hybrid Cladding Non-Circularity Error	$\leq 3.0$ (%)
Soft Peel Jacket Identifier Diameter	$250 \pm 0.7 (\mu\text{m})$
Coating Strip Force	100 (g)
Fiber Curl	$\leq 2$ (m)
Dynamic Fatigue Constant (Nd)	>30
Proof Test	100 (kpsi)
Bend Induced Attenuation at 1300 nm (100 turns around a mandrel of 75 mm diameter)	$\leq 1.0$ (dB)
Dynamic fatigue 23C, 41%RH	>30(nd)
Length	1.0 - 8.8 (Km)

#### 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

