

## COMPONENT SPECIFICATIONS

### 2-12 SSF™ Multimode OM3, 3.0mm Distribution Riser / Plenum / LSZH Cables



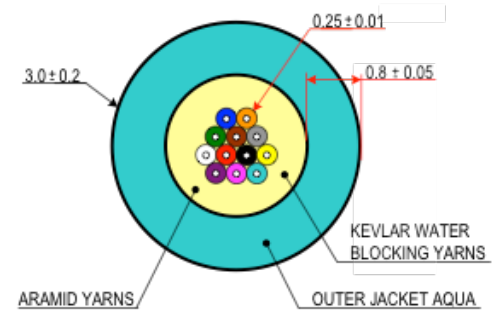
Type OM3, OFNR, CSA FT4 / OFNP, CSA FT6 / OFN-LS, LSZH

Cleerline SSF™ advanced optical glass fibers are much stronger, safer, and faster terminating than typical fibers. This distribution style cable provides the ultimate in durability and bend in a very compact size. 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
- \* Bend longevity for 10,000X longer life time than normal fibers
- \* 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

### 2-12 Strand Riser/Plenum Typical Cross Sections



## CONSTRUCTION

### FIBER

Fiber Count = 2-12  
50/125 Multimode OM3  
250um "Soft Peel" S-Type coating  
Color Coding per TIA/EIA 568C

### JACKET

Riser Rated PVC / Plenum Rated PVC / LSZH  
3.0 mm unit diameter  
Aqua jacket = Multimode fiber OM3  
Sequential footage markings  
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 for Installation = 1000(225) N (lbf)  
Max Tensile Load Long term = 500(112) N (lbf)  
Min. Bend Radius, Unloaded = 10 x OD (10 x 3mm)  
Cable Outside Diameter, Nominal = 3.0mm  
Cable Package = 1000ft Reel in a box

\*Or customer request, spooled

Rating = FT4-Riser / FT6-Plenum / OFN-LS / 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

Interbuilding and intrabuilding voice or data communication backbones requiring 3.0mm jacket diameter. Install in ducts, underground conduits or aerial/lashed UL Listed OFNP for installation in plenum airways and general horizontal applications when installed in accordance with the NEC article 770-51 (a) and 770-53 (a). 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).

### ENVIRONMENTAL CHARACTERISTICS

Temperature Dependence at 850 nm and 1300 nm  $\leq 0.05$  (dB/km)  
Induced Attenuation - 60°C to +85°C  
Watersoak Dependence at 850 nm and 1300 nm  $\leq 0.05$  (dB/km)  
Induced Attenuation at 20°C for 30 days  
Damp Heat Dependence at 850 nm and 1300 nm  $\leq 0.05$  (dB/km)  
Induced Attenuation at 85°C, 85%R.H., 30 days  
Dry Heat Dependence at 850 nm and 1300 nm  $\leq 0.05$  (dB/km)  
Induced Attenuation at 85°C, 30 days

## PRODUCT DETAIL

Cleerline SSF™ 2-12 strand fiber Micro Distribution cable is composed of a distribution style cable with an overall 3.0mm jacket. Utilizing SSF™ fiber allows for incredible strength and durability in such a small cable package. Flex tested to 2000 cycles, Impact to 1500 cycles and crush to 100 kgf/mm. SSF™ allows for ease of installation, safety, and reliability in all installation applications for the ultimate in connectivity.

SSF™ conforms to the requirement of IEC 60793-2-10 A1a.3, 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	≤ 0.05 (dB/km)	
Attenuation Uniformity	≤ 0.05 (dB)	
Group Index of Refraction	850 nm	1.481
	1300 nm	1.476

### PHYSICAL CHARACTERISTICS

Core / Hybrid Cladding Concentricity Error	$\leq 0.5$ ( $\mu$ m)
Hybrid Cladding Diameter	$125 \pm 0.7$ ( $\mu$ m)
Hybrid Cladding Non-Circularity Error	$\leq 1.0$ (%)
Soft Peel Jacket Identifier Diameter	$250 \pm 0.7$ ( $\mu$ m)
Coating Strip Force	$\leq 100$ (g)
Fiber Curl	$\geq 2$ (m)
Proof Test	100 (kpsi)
Bend Induced Attenuation at 850 nm	
(2 turns around a mandrel of 15 mm diameter)	$\leq 0.2$ (dB)
(2 turns around a mandrel of 7.55 mm diameter)	$\leq 0.5$ (dB)
Fiber Length (Typical)	1.1 - 8.8 (Km)

### COMPLIANCE

UL Listed OFNR C(UL)US CSA FT4, OFNP C(UL)USCSA FT6, OFN-LSZH and CSA FT4-STI OFN-LS. RoHS Compliant Directive 2011/65/EU  
\*Ensured via minEMBc per TIA/EIA 455-220A and IEC 60793-1-49



CABLE CHARACTERISTICS	
Fiber Count	2-12
Outer Jacket Material	Riser / Plenum / LSZH
Sub Units	None
Stress Member	Kevlar
Fiber colors	1-12 per TIA/EIA
Jacket Color	Aqua = OM3

PHYSICAL CHARACTERISTICS	VALUE
Nominal Outer Diameter (mm) 2-12	3.0
Weight strand count 2 / 4 / 6 / 8 / 12	2.8 / 3.0 / 3.0 / 4.0 / 5.0 kg/kft
Minimum Bend Radius, Unloaded	10 x OD (10 x 3mm)
Minimum Bend Radius, Operation (cm)	2.95

PART NUMBERS			
Fiber Count	Riser	Plenum	LSZH
2	2D50125MOM3R	2D50125MOM3P	2D50125MOM3L
4	4D50125MOM3R	4D50125MOM3P	4D50125MOM3L
6	6D50125MOM3R	6D50125MOM3P	6D50125MOM3L
8	8D50125MOM3R	8D50125MOM3P	8D50125MOM3L
12	12D50125MOM3R	12D50125MOM3P	12D50125MOM3L