

## COMPONENT SPECIFICATIONS

### 2-72 SSF™ Singlemode OS2 (AIA) Aluminum Interlocking Armored, Riser / Plenum Cables



Type OS2. 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 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

## CONSTRUCTION

#### FIBER

Fiber Count = 2-72  
9/125 Singlemode Dry w/super-absorbant polymer  
250um "Soft Peel" S-Type coating  
Color Coding per TIA/EIA 568C

#### JACKET

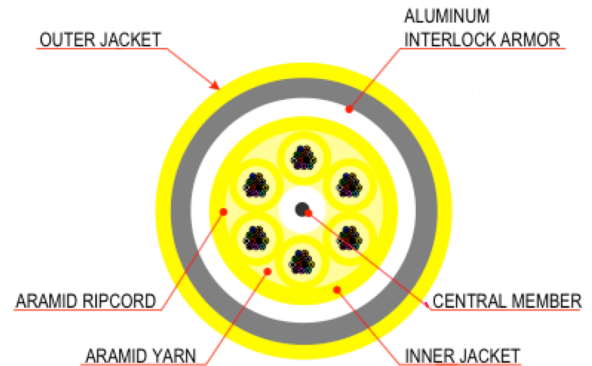
Riser Rated PVC / Plenum Rated PVC  
Jacket diameter 11.6 mm to 19.25mm  
Yellow jacket (or colored to Customer request)  
Sequential footage markings  
Aramid Yarns = Kevlar + Water Block

#### PHYSICAL DATA

Storage Temperature Range	= -40°C to +70°C
Operating Temperature Range	= -20°C to +70°C
Max Tensile Load for Installation	= 800 (180) N (lbf)
Max Tensile Long Load term	= 600 (135) N (lbf)
Allowable Bend Radius	= Dynamic 20D
Cable Package	= Spool

## Typical Cross Section

Part: 72IADSMOS2R



## PRODUCT DETAIL

Cleerline SSF™ fiber, micro distribution aluminum Interlocking armored cable consists of either a Riser or Plenum overall jacket with 2-72 fibers and water blocking kevlar yarns. The core is protected by a spirally-wrapped aluminum strip that offers easy installation and high crush resistance. The cable is designed to withstand rugged environments, is rodent resistant, and withstands abuse while protecting the encased fibers. This product eliminates the need for inner duct or conduit thus saving installation time.

SSF™ complies or exceeds the ITU-T recommendations G.657 A2, G657 B2 and G.652 D, the IEC International Standard 60793-2-50 type B.1.3 and B.6.A&B Optical Fiber

## CABLE CHARACTERISTICS

Fiber Count	2-12 / 24, 36 / 48 / 72
Cable Outer Diameter, Nom. (2-12 / 24, 36 / 48/ 72)	11.6 / 13.0 / 17.45 / 19.25
Sub Unit/s	3.0mm Loose Tube
Bend Radius (2-12 / 24, 36 / 48/ 72)	23.2 / 26.0 / 34.9 / 38.5
Water Mitigation	Kevlar + Water Block
Weight (2-12 / 24, 36 / 48/ 72)	252 / 349 / 433 / 530 / 672 lbs/km

### **Fiber Optics Characteristics:**

SMF	Wavelength (nm)		1260	1310	1383	1550	1625
	Max. Attenuations Loss (dB/km)		≤ 0.45	≤ 0.40	≤ 0.35	≤ 0.3(Typ. 0.25)	≤ 0.35
	Macro Bending Loss	Bending Diameters		15mm		10mm	7.5mm
		Bending Turns		10		1	1
		Max. Bending Loss@1550nm(dB)		0.03		0.1	0.5
		Max. Bending Loss@1625nm(dB)		0.1		0.2	1.0

### **Fiber/Cable Performance Summary:**

Type	Item	Standards Compliance & Condition	SM(ΔLoss)
Fiber	High Humidity Aging	IEC 60793-1-50, 85°C/85%RH 30days	<0.05dB/km
	Thermal Aging	IEC 60793-1-51, 85°C 30days	<0.05dB/km
	Temperature Cycling	IEC 60793-1-52, -10°C~85°C, 21 cycles	<0.05dB/km
	Water soak	IEC 60793-1-53, 23°C/soak into water, 30days	<0.05dB/km
	Hydrogen Aging	IEC 60793-2-50, 23°C/ Hydrogen loading 0.01 atm	<0.40dB/km
Cable	Tensile Test	TIA/EIA-455-33A, 100kg tensile loading, for 10 minutes	<0.20dB/km
	Repeat Bending	TIA/EIA-455-104A, Bending Diameter:60mm, 25 times	<0.20dB/km
	Impact Test	TIA/EIA-455-25B, 1kgf for 20 times	<0.20dB/km
	Twist Test	TIA/EIA-455-85A, 1 m for 10 times	<0.20dB/km
	Crush Test	TIA/EIA-455-41A, 1kgf/mm for 10 minutes	<0.20dB/km
	Water Penetration	TIA/EIA-455-82B, 1m static water pressure, 3m sample for 4 hours, No water leaked.	
	Temperature Cycling	TIA/EIA-455-3A, -40°C~70°C	<0.20dB/km
	Flammability	IEEE 383-1974, Flame propagation < 1.8 meters	

#### **PART NUMBERS – OS2 SSF™ FIBERS**

Fiber Count	Riser	Plenum
## (2-12)	##IAD9125SMOS2R	##IAD9125SMOS2P
24	24IAD9125SMOS2R	24IAD9125SMOS2P
36	36IAD9125SMOS2R	36IAD9125SMOS2P
48	48IAD9125SMOS2R	48IAD9125SMOS2P
72	72IAD9125SMOS2R	72IAD9125SMOS2P