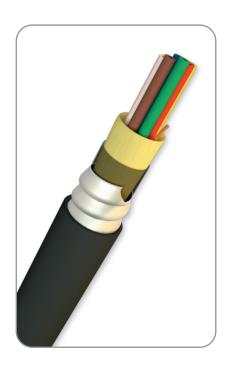
# FAFL





ARMORED CABLING

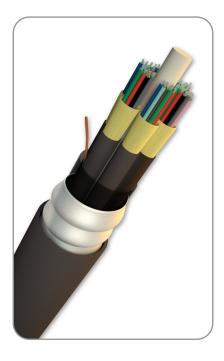


# **Indoor/Outdoor Riser Tight Buffered Cable**

AFL's Indoor/Outdoor Riser Cables are water-blocked CORE and ICEA-S-104-696 cables with fiber counts from two to 24. These cables are OFNR-listed for indoor applications. Both sub-unit jackets and outer sheath contain a UV stabilizer and anti-fungus protection for use in outdoor applications.

#### **Features**

- Water-blocked sub-units meet water penetration requirements of GR-20-CORE, ensuring that damage to cable is restricted to a repairable length of several meters
- Moisture-resistant, fungus-resistant and UV-resistant outer jacket suitable for outdoor use
- Riser-rated for use in all environments including general inside plant and outside plant
- Sub-units tested to meet or exceed EIA/TIA 568-A/GR-409-CORE and ICEA-S-104-696
- Compliant to Directive 2002/95/EC (RoHS)
- MSHA-approved for mining applications

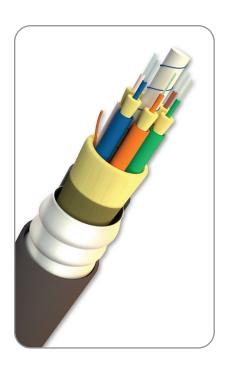


# Indoor/Outdoor Multi-unit Riser Tight Buffered Armored Cable

AFL's high-fiber count armored Indoor/Outdoor Riser Cables are water-blocked 12-fiber sub-units helically stranded to provide sub-unitized cables ranging from 24 to 72 fiber counts. OFNR-listed for indoor applications, both the sub-unit jackets and outer sheath contain a UV stabilizer and anti-fungus protection for use in outdoor applications. The sub-units contain a water-swellable aramid and 12 tight-buffered fibers.

#### **Features**

- Water-blocked sub-units meet water penetration requirements of GR-20-CORE, ensuring that damage to the cable is restricted to a repairable length of several meters
- Moisture-resistant, fungus-resistant and UV-resistant outer jacket suitable for outdoor use
- Riser-rated for use in all environments including general inside plant and outside plant
- Sub-units tested to meet or exceed EIA/TIA 568-A/GR-409-CORE and ICEA-S-104-696
- Compliant to Directive 2002/95/EC (RoHS)
- MSHA-approved for mining applications

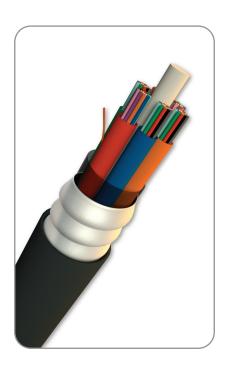


# **Ruggedized Indoor/Outdoor Breakout Cable**

AFL's Ruggedized Indoor/Outdoor Riser Breakout cable is suited for applications requiring a high performance fiber optic cable. Water-blocked and reinforced with all-dielectric strength members within the core, this cable can withstand the rigors presented by higher end installations. Available in two to 12 fiber counts, these cables feature a UV- and fungal-resistant semi-pressure extruded outer jacket. Individual sub-units measure 2.5 mm allowing for ease of field termination. Sub-units are also water-blocked adding to the overall protection of the fiber optic components from environmental damage.

#### **Applications**

- Routing inside of buildings where additional ruggedness is required or where increased rodent resistance is required
- Extra protection for fiber optic cables in harsh industrial environments
- Manufacturing plants
- High-density routings in data center applications



# Industrial Loose Tube Cable, LSZH, OFCG-LS, Aluminum Interlock Armor

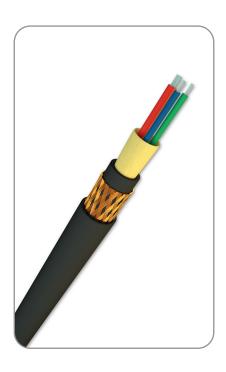
AFL's Industrial Loose Tube Cables are designed for high reliability in heavy industrial and harsh environment applications. Consisting of a formed metallic armor, the cable features superior crush resistance and a high degree of flexibility. Furthermore, the cable features a flame retardant LSZH jacket which is UV stabilized and highly resistant to chemicals commonly found in industrial environments. With an OFCG-LS listing, the cable is suitable for both indoor and outdoor industrial installations.

#### **Features**

- Eliminates need for conduit
- Simplified one-step installation
- Highly crush resistant
- Resistant to lubricating oil, gasoline, deionized water and many other chemicals
- Gel-free buffer tubes SZ stranded for quick and easy access
- Available with bend insensitive single-mode and multimode optical fiber
- Supports all multi-gigabit Ethernet standards

#### **Applications**

- Intra- and inter-building backbones
- Harsh industrial environments
- Data centers
- Manufacturing facilities
- Communications closets



# **Braided Armored Deployable Tight Buffered Cable**

AFL's Armored Deployable Tight Buffered Cables are ideal for use in installations where extreme environmental conditions are present. With the addition of a wire braid embedded within the jacketing system, these cables are highly resistant to damage caused by repetitive impact, high flex, crush and abrasion as well as other harsh conditions. By utilizing AFL's tight-buffered fiber technology, field termination is simplified.

#### **Features**

- Cut-resistant polyurethane outer jacket
- Highly flexible construction for multiple deployments
- Performance in wide temperature range
- High impact and crush resistance
- Durable in high traffic areas
- Water- and UV-resistant
- Multiple jacket colors available
- Capable of supporting all multi-gigabit Ethernet Protocols

#### **Applications**

- Field deployment in abusive environments
- High traffic areas
- Security and sensing applications
- High flex applications
- Installations in industrial environments
- Temporary installation of critical communications lines where quick retrieval and re-use is necessary



### **BU Series Braided Armored Breakout Cable**

AFL's Braided Armored BU-Series Breakout Cables are ideal for use in harsh environment applications requiring a rugged deployable cable solution. Consisting of 2 mm sub-cables, each optical fiber is suitable for direct termination enabling fast and easy installation. This reduced diameter, light weight and high strength cable features a tough abrasion-resistant polyurethane jacket that offers exceptional performance through a wide range of temperatures. It is also impervious to common chemicals found in industrial environments. Available with a flame retardant jacket option, the BU-Series Breakout Cable is ideal for use in mines, petrochemical facilities and other industrial applications.

#### **Features**

- Deployable design
- UV, fungus and water-resistant
- Highly crush, cut and impact resistant
- Resistant to most fuels, oils and greases
- Excellent low-temperature flexibility
- 2.0 mm sub-cables available in a variety of colors
- Available with shiny or matte low-friction jacket
- Available with bend insensitive single-mode and multimode optical fiber
- Supports all multi-gigabit Ethernet standards
- MIL PRF85045, ANSI/ICEA-S-104-696, RoHS compliant
- Custom colors available

#### **Applications**

- Mining
- Petrochemical facilities
- Industrial environments
- Braid application per IEEE 1580 available



# Harsh Environment Fiber Optic Cable

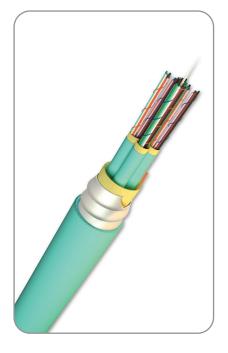
AFL's Harsh Environment Fiber Optic Cable is designed to maintain integrity of vital optical communication links in the harshest of environments. The individual optical fibers are encased within metallic tubing to serve as a protection barrier against water, chemicals and fire. Since the cable is armored with metallic wires, the structural integrity of the cable will be maintained through severe loading events for an extended period enabling a highly reliable optical circuit. This cable is available in a variety fiber counts and types and can be customized to meet the most stringent requirements. Cable meets the requirements of NFPA130 and NFPA 502 2014. Listings Pending.

#### **Test Standards**

- IEC 60331-25 Tests for electric cables under fire conditions—circuit integrity
- IEC 60332-3-25 Tests on electric cables under fire conditions
- IEC 60754-1 Halogen acid gases evolved during combustion of materials taken by titration
- IEC 60754-2 Halogen acid gases evolved during combustion of materials taken by measuring pH and conductivity
- IEC 61034-1 Measurement of smoke density of cables burning under defined conditions
- IEC 60794-1-2 Various mechanical and environmental tests

#### **Features**

- Hermetic stainless steel tube
- High-strength wire
- Custom jacketed compounds
- Hydrogen scavenging gel
- Long lengths
- Inline splice technology
- Proven technology
- Long life expectancy



# Sub-unitized Premise MicroCore® 3.0 with with Spider Web™ Ribbon Technology

Sub-Unitized Premise MicroCore 3.0 fiber optic cable enables the highest pathway density of all AFL inside plant cabling solutions, revolutionizing deployment and allowing the end user to realize savings in space, routing infrastructures and fiber management. Aluminum interlocking armor provides the best balance of ruggedness, flexibility and low weight. Flame-rated armored cables with no outer jacket and flame-rated armored cables with steel interlocking armor are also available.

#### **Features**

- Plenum NFPA 262 Rated
- Flexible dielectric FRP central strength member
- Aramid tensile strength members within sub-units
- Compliant to Directive 2002/95/EC (RoHS)
- Tested to meet or exceed EIA/TIA 568-B3, Telcordia GR-409-CORE (Issue 2 - Horizontal Backbone Cables) and ANSI/ICEA S-83-596
- CSA 22.2#232 (FT6)

#### **Applications**

- In-building cable runs where space is a premium
- Trunk applications where flexibility and small bend radii are required to route cable
- High density cable areas like data centers and central offices
- Lower cost cable runs where easy handling of tight-buffered fibers are not needed because cable will be spliced to factory terminated pigtails

# **Fiber Specifications**

CORE SIZE/FIBER TYPE	ISO/ IEC	MAXIMUM ATTENUATION (DB/KM)			OVERFILL LAUNCH MIN. BANDWIDTH (MHZ•KM)		EMBc (MHZ•KM)	GIGABIT ETHERNET MIN. LINK DISTANCE (METERS)		10 GIGABIT ETHERNET MIN. LINK DISTANCE (METERS)	
		850 NM	1300 NM	1550 NM	850 NM	1300 NM		850 NM	1300 NM	850 NM	1300 NM
(6) 62.5 Giga-Link™ 300	OM1	3.5	1.2	N/A	200	600	N/A	300	550	32	
(5) 50 Giga-Link™ 600	OM2	3.5	1.5	N/A	500	500	N/A	600	600	82	
(L) 50 Laser-Link 300	OM3	3.0	1.2	N/A	1,500	500	2,000	1,000	550	300	
(C) 50 Laser-Link 550	OM4	3.0	1.2	N/A	3,500	500	4,700	1,040	550	550	
(W) AFL Wideband Multimode	OM5	3.0	1.2	N/A	3,500	500	4,700	1,040	550	550	
(9) Single-mode (ITU G.652.D/G.657.A1)	OS2	N/A	0.5	0.5	N/A	N/A	N/A	N/A	5,000	N/A	N/A

# **Aluminum Interlocking Armor (AIA) Sizing Chart**

		OD V	WITH	ARMOR	AND JAC	KET WEIG	HT (ADD	ABLE)	BEND RADIUS				
			ЛOR ACKET	PLENUM PVC (OFCP) AIAP		RISER PVC (OFCR) AIAP		LSZH AIAL		SHORT TERM		LONG TERM	
INCH	ММ	INCH	MM	LBS/ 1000 FT	KG/KM	LBS/ 1000 FT	KG/KM	LBS/ 1000 FT	KG/KM	INCH	CM	INCH	CM
0.17	4.4	0.47	11.9	67	100	60	90	67	100	7	18	5	12
0.22	5.6	0.52	13.3	77	115	70	105	77	115	8	20	5	13.5
0.26	6.6	0.56	14.3	87	130	77	115	87	130	8	21.5	6	14.5
0.33	8.4	0.62	15.9	97	145	87	130	97	145	9	24	6	16
0.37	9.4	0.68	17.3	107	160	97	145	107	160	10	26	7	17.5
0.42	10.7	0.74	18.7	121	180	107	160	117	175	11	28	7	18.5
0.46	11.7	0.77	19.7	127	190	114	170	124	185	12	29.5	8	19.5
0.52	13.1	0.83	21.1	138	205	124	185	138	205	12	31.5	8	21
0.56	14.2	0.87	22.1	148	220	134	200	144	215	13	33	9	22
0.63	16.1	0.96	24.3	161	240	144	215	161	240	14	36.5	10	24.5
0.69	17.4	1.02	25.9	171	255	154	230	168	250	15	39	10	26
0.74	18.7	1.07	27.1	185	275	164	245	181	270	16	40.5	11	27
0.78	19.8	1.12	28.4	191	285	171	255	188	280	17	42.5	11	28.5
0.83	21.1	1.17	29.7	201	300	181	270	198	295	18	44.5	12	29.5
0.88	22.3	1.22	31.0	211	315	191	285	211	315	18	46.5	12	31
0.92	23.3	1.27	32.2	221	330	198	295	218	325	19	48.5	13	32
0.96	24.4	1.30	33.0	231	345	208	310	228	340	19	49.5	13	33
1.04	26.3	1.39	35.3	242	360	218	325	242	360	21	53	14	35.5

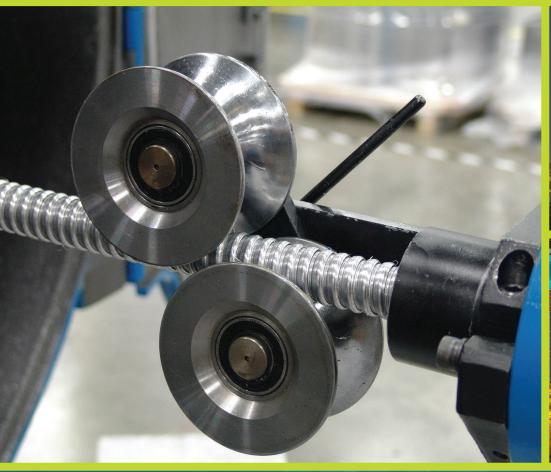
### **Stock Items**

AFL stocks many of our most popular cables for your convenience. With warehouses located in New York, South Carolina, Texas and California, AFL can quickly ship to any location in the United States. Please contact us at 800-AFL-FIBER or AFLPremiseStock@AFLglobal.com for more details.



Look for the stock item icon in our catalogs and brochures for cables kept in stock.









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