

# **High-Density Fiber Loose Tube Cable**

Offering Increased Fiber Density and Easy Deployment for a Wide Range of Installations





Optical Fibers Gel-Filled Buffer Tube Central Member Dielectric Strength Elements Outer PE Jacket Water Blocking Material (DryBlock standard) Ripcord

#### Light Armor



Optical Fibers Ripcord Gel-Filled Buffer Tube Central Member Dielectric Strength Elements Corrugated Steel Armor Outer PE Jacket Water Blocking Material (DryBlock standard) Ripcord

#### Armored



Optical Fibers Gel-Filled Buffer Tube Central Member Dielectric Strength Elements Corrugated Steel Armor Inner PE Jacket Outer PE Jacket Water Blocking Material (DryBlock standard) Ripcord

## **Features and Benefits**

- Fiber counts from 300 to 432 (with 24 fibers per tube) in all constructions
- Dual-layer, stranded core for ease of access
- 1,000-pound (4450N) rated installation tension for long pulls without fiber strain
- Highly durable and reliable for outside plant use
- DryBlock<sup>®</sup> water-blocking technology for a more craft-friendly, jelly-free cable core

- ROL stranding and ripcords for fast mid-span entry
- Available to extended operational temperature range of -60 °C
- High-density polyethylene (HDPE) jacket available on request
- Features OFS applicationspecific fibers, including AllWave<sup>®</sup> ZWP and AllWave+ Single-Mode along with Multimode Fibers

## **Product Description**

The High-Density Loose Fiber Cable offers increased carrying capacity in a nonribbonized, loose fiber cable construction. With this design, a group of 12 optical fibers is wrapped with color-coded yarn to form each fiber bundle. Next, two fiber bundles are placed within each color-coded, gel-filled buffer tube to protect the fibers from external forces. DryBlock<sup>®</sup> water-blocking material is then applied to the cable core to provide water penetration resistance. Finally, dielectric strength elements are added for extra tensile strength.

# Why the High-Density Loose Fiber Cable?

The High-Density Loose Fiber Cable maximizes fiber density, offering an excellent solution for service providers who need increased carrying capacity and prefer a non-ribbon cable design. With its 1,000 pound (4450 N) rated pulling tension, this cable offers outstanding durability and reliability for a wide range of outside plant installations, including long pulls, without fiber strain.

The Reverse Oscillating Lay (ROL)-stranded, dual-layer cable core and ripcord offer fast and easy mid-span access for cable splicing and handling. DryBlock waterblocking technology makes cable preparation cleaner and easier, helping you save on time and money.

# **Jacketing Options**

The High-Density Loose Fiber cable is available in three constructions to meet the demands of your specific installation.

Specifications	Single Jacket	Light Armor	Armored
Fiber Count:	300-432	300-432	300-432
Outer Diameter - in. (mm)	0.84 (21.2 )	0.90 (22.8)	0.96 (24.3)
Weight - Ib/kft (kgm/km)	233 (346)	304 (453)	341 (508)
Handling			

Maximum Bend Radius, With Load:15 x OD\*Maximum Bend Radius, With No Load:10 x OD\*

### Temperature: Operations: -40 °F - 158 °F (-40 °C - 70 °C)

\* NOTE: OD = Outer Diameter of Cable, minimum of 6 in. (15 cm). See OFS Installation Procedure 042 for sheath preparation and coiling instructions.

Fiber Type <sup>2</sup>							
	Fiber	Fiber	Fiber	Fiber		Typical *	Maximum Cable on Reel
Single-Mode Fiber	(S1)	(S2)	(SF)	Standards	Wavelengths (nm)	Attenuation (dB/km)	Attenuation (dB/km)
AllWave® ZWP Fiber	3	В	Е	G.652.D	1310/1385/1550	-	0.35/0.31/0.25
AllWave+ ZWP Fiber	3	С	Е	G.652.D/G.657.A1	1310/1385/1550	-	0.35/0.31/0.25
AllWave FLEX ZWP Fiber	5	В	Е	G.652.D/G.657.A1	1310/1385/1550	-	0.35/0.31/0.25
AllWave One Fiber	3	F	Е	G.652.D/G.657.A1	1310/1385/1550	0.33/0.31/0.19	0.34/0.31/0.22
AllWave ULL Fiber	3	Н	Е	G.652.D/G.657.B	1310/1550	0.31/0.17	0.33/0.19
TrueWave® RS LWP Fiber	6	2	6	G.655.C&D	1550	0.21	0.25
TeraWave® Fiber	6	2	R	G.654.B	1550	0.19	0.25
TeraWave ULL Fiber	6	9	R	G.654.B	1550	0.18	0.22
Multimode Fiber							
62.5 µm Fiber	R	U	9	OM1 62.5 µm	850/1300	-	3.4/1.0
LaserWave® FLEX 300 Fiber	L	F	2	OM3 50 µm	850/1300	-	2.4/0.7
LaserWave FLEX 550 Fiber	L	Н	2	OM4 50 µm	850/1300	-	2.4/0.7

#### High Density Loose Fiber Cable Ordering Information

Example: AT-3BE12EF-NNN <sup>1</sup> F	Part Number: <b>AT- <u>S1</u> S2 SF S3 S4 S5 S6 - <u>NNN</u></b>		
S1 = Fiber Selection See S1 in Fiber Type table above	S3 = Sheath Construction 1 = Single Jacket All Dielectric	S5 = Core Type E = 3.5 mm Gel-filled tube	
S2 = Fiber Transmission Performance See S2 in Fiber Type table above	<ul> <li><b>H</b> = Single Jacket, Single Armor</li> <li><b>N</b> = Double Jacket, Single Armor</li> </ul>	S6 = <b>Fibers per Tube</b> <b>F</b> = 24 fibers per tube	
SF = Fiber Type <sup>2</sup> See SF in Fiber Type table above	S4 = Tensile Load 2 = 600 lb. (2700 N)	<i>NNN</i> = Fiber Count = 300-432	

<sup>1</sup> Part Number shown is for a High Density Single Jacket Cable with standard AllWave ZWP attenuation and standard cable print. Maximum AllWave ZWP attenuation: 0.35/0.31/0.27/0.25/0.27 dB/km @ 1310/1385/1490/1550/1625 nm

Standard Print, example for High Density Single Jacket Cable: OFS OPTICAL CABLE AT-3BE12EF-NNN [MM-YY] (UL) US TYPE OFNR [HANDSET SYMBOL] [NNN] F [SERIAL #]

<sup>2</sup> Contact OFS Order Management for information on other cable variations, including additional fiber types, attenuation, and custom cable print.

**NOTE**: For more information regarding typical attenuation as well as attenuation parameters on Link Design Value (LDV) (Maximum end-to-end attenuation over a concatenated span), please see OFS Application Note AN-111 which can be downloaded at www.ofsoptics.com or contact your OFS representative.

#### For additional information please contact your sales representative.

You can also visit our website at www.ofsoptics.com or call 1-888-fiberhelp (1-888-342-3743) USA or 1-770-798-5555 outside the USA.



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