

**STRENGTH MEMBERS**

FIBERS PROCESSES PRODUCTS

WHY FIBER-LINE® STRENGTH MEMBERS?**Key Features**

- Dielectric strength members
- Sizes Available: 0.175 mm – 18.00 mm
- Available Forms:
Flat, Twisted, Cords, Rovings, & Jacketed
- Shapes: Flat or round

FIBER-LINE® FIBERS**FOR STRENGTH MEMBERS**

- Kevlar® Para-Aramid
- Vectran® Liquid Crystal Polymer (LCP)
- Zylon® Polybenzoylate (PBO)
- Carbon Fiber
- Ultra High Molecular Weight Polyethylene (UHMWPE)
- PET Polyester
- Fiberglass
- Nylon Polyamide
- Technora®

FIBER-LINE® PERFORMANCE**ADDING COATINGS**

- FIBER-LINE® Wearcoat™:
Abrasion Resistance*
- FIBER-LINE® Bondcoat™:
Adhesion Promotion*
- FIBER-LINE® Protexcoat™:
UV Protection*
- FIBER-LINE® Colorcoat™:
Color Identification*
- FIBER-LINE® Swellcoat™:
Water Absorbing Protection*
- FIBER-LINE® Swellcoat®Blocker:
Block Water Migration*

FIBER-LINE® PRODUCTS**W/ STRENGTH MEMBERS**

- Strength members in cables
- Steel replacement

Overview

FIBER-LINE® develops, produces, and markets a full line of high performance strength members. The products are used around the world as central strength members or as components of larger rope and cord structures. Utilizing our processing capabilities (extrusion, pultrusion, & twisting) and performance-enhancing coatings, allow our customers to achieve optimal performance.

High Strength Synthetic Fibers Outperform Steel**Our Products Remove****• Weight**

Steel is heavier than synthetic fibers. HMPE for example, has a specific gravity less than 1 and will float in water.

• Corrosion

Since our products are non-corrosive, they offer outstanding performance in corrosive environments, including marine and off-shore applications.

• Conductivity

High-performance synthetic fibers act as a barrier between electrical components.

• Creep

When exposed to static long-term loads, synthetic fibers stretch very little. LCP for example, can be constructed to practically eliminate creep.

• Stretch

All high-modulus high-performance fibers such as carbon tows have low stretch properties. Depending on the application, Nylon Polyamide and polyester can provide higher stretch properties if desired.

• Kinking

Unlike steel wire, synthetic fibers do not kink, resulting in a safer and longer-lasting product.

Packaging

FIBER-LINE® Strength Members are supplied on a variety of cardboard tubes to meet your equipment needs. Contact us today with tube dimensions you require. Packages can be supplied on colored, embossed and/or slit tubes. Plastic, wood, or metal reels are also available.

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FIBER-LINE PERFORMANCE**ADDING POLYMER JACKETS**

- LDPE, MDPE, HDPE**
- PP**
- ETFE**
- Polyurethane**
- PVC**
- PFA**
- PVDF**
- EPC**

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High Strength Synthetic Fibers Outperform Steel**Our Products add**

- **Strength**
On an equivalent weight basis, fibers like Aramid, LCP, and PBO are 5-10 times stronger than steel.
- **Chemical Resistance**
High performance fibers resist soiling and the absorption of water, solvents, and other chemicals.
- **Abrasion Resistance**
HMPE as a jacketing material, is a great example of the excellent abrasion resistance of high performance fibers.
- **Fatigue Resistance**
Aramid Fibers have exceptional bending and tensile fatigue resistance.
- **Safer Handling**
Because synthetic fibers are flexible and weigh less than steel, they are easier to work with, lead to fewer weight-related injuries and completely eliminates fish hooks.
- **Dampening**
Synthetic fiber cables have excellent shock absorption and load dampening properties.



POPULAR COATED STRENGTH MEMBERS

Product ID	FIBER-LINE® Coating	Base Fiber	Break Strength	Yield	Geometry	Nominal Diameter	Absorption Capacity	Description
K1420/ SC-BKR	Swellcoat® BKR	Kevlar®	74.1 LBs (33.6 KGs)	8400 Ft/LB (2560 M/LB)	Flat	.441 mm	9.0 g/g	Water blocking strength element in cable designs.
G675/SC-10	Swellcoat®	E-Glass	22.7 LBs (50 KG)	1835 Ft/LB (1233 M/KG)	Flat	TBD ???	15.0 g/g	Water blocking strength element in cable designs.
PBO1500	FIBER-LINE® Bondcoat™	Zylon	125 LBs (56 KGs)	8480 FT/LB (5696 M/KG)	Flat	.421 mm	N/A	Strength member treated with adhesion promoting coating.
V9000T	FIBER-LINE® Wearcoat™	Vectran	560 LBs (254 KGs)	1389 FT/LB (932 M/LB)	Flat/Round	1.13 mm	N/A	Twisted strength member treated with anti-abrasion coating.
K58220T	N/A	Kevlar®	2480 LBs (1125 KGs)	230 FT/LB (154 M/KG)	Flat	2.81 mm	N/A	Strength member in cable application

POPULAR JACKETED STRENGTH MEMBERS

Product ID	FIBER-LINE® Polymer Jacket	Base Fiber	Break Strength	Yield	Geometry	Nominal Diameter	Description
13.75mm K/Hytrel	Hytrel Jacket	Kevlar®	29000 LBs (13154 KGs)	138 KGs/KM	Round	13.75mm	Kevlar rope w/ Hytrel extruded jacket
12.5mm K/TPU	TPU jacket	Kevlar®	24000 LBs (10885 KGs)	115 KGs/KM	Round	12.5mm	Kevlar rope w/ Hytrel extruded jacket
7.87mm K/MDPE	MDPE Jacket	Kevlar®	24000 LBs (10885 KGs)	50 KGs/KM	Round	7.87mm	Kevlar w/ MDPE extruded jacket
.58mm C/PU	TPU jacket	Carbon	74 LBs (33.6 KGs)	N/A	Round/ Flat	.58mm	Carbon w/ TPU extruded jacket
4.50mm K/HDPE	HDPE jacket	Kevlar®	2000 LBs (907 KGs)	16 KGs/KM	Round	4.06 mm	Kevlar w/ HDPE extruded jacket

This data is provided for informational purposes only, and does not constitute a specification. FIBER-LINE® makes no warranty, express or implied, that the product conforms to these values. Contact your FIBER-LINE® representative for exact product details which conform to your specific requirements.

**ABOUT FIBER-LINE®**

For over 25 years, FIBER-LINE® has provided science-driven expertise that improves the performance and the end-use processing of high performance fibers. Our products enable the search for new energy reserves and extend the life of fiber optic telecommunication cables. They also add important characteristics, such as SWELLCOAT® water-blocking, water repellence, adhesion, color, and wear and UV-resistance to these and many other applications. We believe that our ongoing commitment to protect the environment, to remain at the forefront of fiber and coating technology, and to 'treat others as we want to be treated' will continue to drive the success of our customers, shareholders, and employees.

**LOCATIONS****Headquarters, R&D, Manufacturing**

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