

FIT[®] Wire Management



FIT® Wire Management

Better wire management means better harnesses



Bringing order to wire harnesses and cable routing means a system that is more reliable, easier to fabricate, and simpler to maintain. Our woven sleeves are tough and flexible. For additional resistance to chemicals, oils, and solvents, our flexible tubing offers exceptional performance and operates at temperatures as high as 260°C. Our braided shields are effective and easy to use for additional EMI protection or a ground connection.

Neatness counts

As a leader in premium products, Alpha Wire knows wire and cable. And we know the challenges you face in creating harnesses, routing, and combating noise. Our FIT wire management products are designed to tame the most unruly applications.

Harnessing

Make any wire harness organized, manageable, and neat with our tubing, sleeving, spiral wrap tubing, zipper tubing, and lacing tape. Our unique ZIP-GRP expandable, enclosure sleeving allows easy re-entry and unlimited wire and cable break outs with its hook and loop fastener system.

Shielding

Add shielding easily and quickly. We offer flat, round, and oval braided shielding for additional protection against EMI and for grounding protection. Our copper foil shielding tape is backed with a highly conductive, pressure-sensitive adhesive for use in a wide variety of EMI/RFI shielding applications in cable and connector assemblies.

Routing

Get the advantages of conduit in a flexible non-metallic, liquid-tight tubing and connection system that protects wire, copper cable, and fiber-optic cable in factories, offices, or underground installations. Use our watertight tubing to replace rigid raceways where flexibility, re-entry, or re-usability is required. Additionally, Alpha offers split looms to provide a convenient solution for your routing needs.

FIT® Wire Management

Better wire management means better harnesses



PVC-105

PVC tubing is the workhorse choice for protecting, organizing, and routing cables.



Convoluted Slit Loom Tubing and Tee Connector Fittings

Type 492 Tubing

Type 493 Fittings

Flexible polyethylene loom material permits fast, easy installations and protection of harness and cable assemblies. The loom is slit full length so that it slides over the completed wire assembly easily, but closes after installation to protect the wire bundle. The slit allows for the wires to break out at any point along the cable length for custom installation. Companion snap-on connectors provide simple, clean cable junctions.



Flexible Liquid-Tight PVC Tubing and Nylon Connectors

FNT Tubing

SLC and RLC Connectors

FNT PVC tubing system of wire management products for electronic and electrical wire protection provides maximum flexibility and can be used in extremely tight quarters. The tubing is excellent for general applications where maximum flexibility is required or in areas where movement, vibration, or flexing is a problem.



Zipper Tubing™

ZIP-41

Protect wire, cables, and harnesses. Alpha Zipper Tubing provides a professional finish to wiring installations by eliminating exposed wiring and providing added protection against flame, chemicals, and abrasion. With Zipper Tubing, it's possible to isolate any group of wires or cables quickly and easily, without the bother of tape wrapping. Zipper Tubing is an ideal jacketing material for use in harsh environments for production or repair of harness assemblies. Each package contains two plastic sliders.

FIT® Wire Management

Better wire management means better harnesses

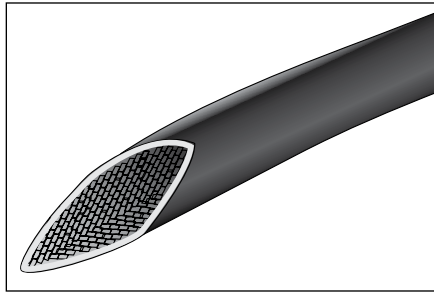


Flexible PTFE Tubing

TFT-200 Thin-Wall Tubing

TFT-250 Standard-Wall Tubing

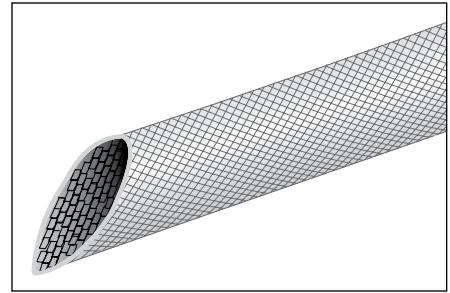
To improve the reliability of cable harnesses, PTFE tubing provides a heat and abrasion resistant wire insulator under the most adverse conditions. With an unmatched temperature range, exceptional abrasion resistance, and excellent dielectric properties, it maintains flexibility over its entire temperature range.



PVC-Coated Fiberglass Sleeving

PIF-130

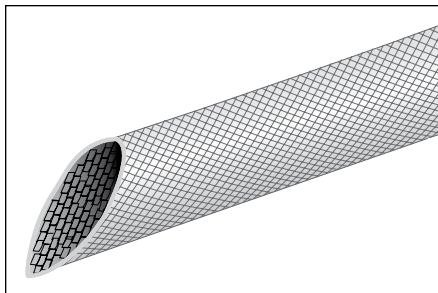
PIF-130 sleeving is a woven fiberglass braid impregnated with a heat-resistant, extremely tough, abrasion-resistant and flexible plastic insulation. The fiberglass is treated to remove all organic matter and resist fraying. The sleeving is completely compatible with all insulation and conductor types.



Uncoated Fiberglass Sleeving

PIF-240

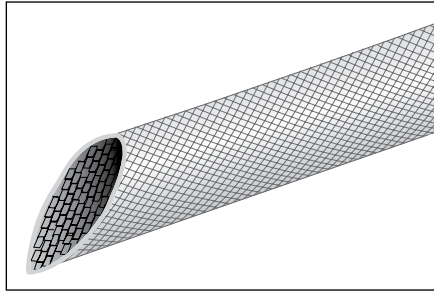
PIF-240 sleeving is extremely flexible and abrasion resistant. It is ideal for applications requiring operation up to 648°C. It is heat treated to remove all organic matter, and it is completely compatible with all insulation and conductor types.



Acrylic-Coated Fiberglass Sleeving

AF-155

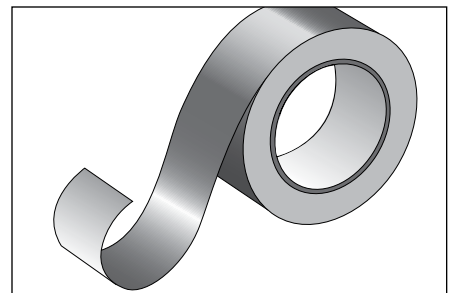
AF-155 is a specially designed fiberglass sleeving coated with a thermally stable, flexible, acrylic resin for wire and cable protection in electrical equipment. The most economical and versatile of all coated sleeving products, it offers high heat resistance, extreme flexibility, and resistance to cracking, abrasion, cut-through, and chemicals.



Silicone-Coated Fiberglass Sleeving

PIF-200, SF-200

PIF-200 and SF-200 sleeving offers high heat and superior electrical characteristics in a closely woven, braided fiberglass, uniformly coated with silicone rubber. It provides low temperature flexibility to -70°C and heat protection to 200°C. The fiberglass sleeving material is heat-set, cuts cleanly, and will not fray. It is easy to “pushback” and form over components, connections, and cables.



CST Series

The pressure-sensitive adhesive contains a uniform dispersion of unique oxidation-resistant conductive particles that produce very low resistance through the tape. This feature results in shielding performance approximately 5 dB better than other metal foil shielding tapes.

FIT® Wire Management

Better wire management means better harnesses



Self-Fusing Silicone Tape

Where a masking wrap or permanently resilient insulation seal is necessary, self-adhering silicone tape is made of special unsupported silicone rubber compound that readily adheres to itself when wrapped under tension and fuses to form a homogenous mass within 24 hours at room temperature or 4 hours at 177°C. The self-adhering silicone is protected with a polyester or polyethylene liner to prevent contamination and blocking.



Spiral Wrap Tubing SW

Spiral wrap tubing simplifies wire harnessing, cabling, and bundling. Alpha's SW tubing wraps tightly to the wire and cable being bundled, yet is flexible and simple to apply. All types maintain flexibility even when bent around sharp edges. Breakouts or tapoff connections may be made through the openings of the wrap. SW spiral wrap is constructed from several semirigid tubing materials and then cut on a continual spiral.



Expandable Braided Polyester Sleeving

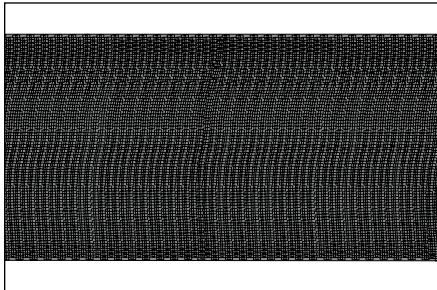
GRP-110, GRP-120

GRP-110/120 is a lightweight, expandable woven polyester sleeving that offers high flexibility with high resistance to abrasion and cut-through. The open weave allows for a great range of expansion of the sleeving diameter, thus ensuring ease of installation and gripping action over a wide range of shapes and sizes. GRP sleeving is an ideal protective sleeve for wire bundles, harnesses, pneumatic hoses, hydraulic lines, and highly polished or threaded machine parts.

To prevent fraying of ends, GRP-110 and GRP-120 should be cut/sealed with a hot knife.

FIT® Wire Management

Better wire management means better harnesses



Non-Fraying, Expandable Braid Sleeving

GRP-110NF, GRP-120NF

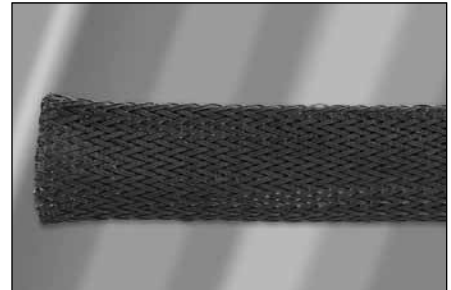
GRP-110NF/120NF sleeving cuts cleanly and fray-free with scissors, with no hot knife required. It is a lightweight, expandable woven polyester sleeving that offers high flexibility with high resistance to abrasion and cut-through. The open weave allows for a great range of expansion of the sleeving diameter, thus ensuring ease of installation and gripping action over a wide range of shapes and sizes. GRP sleeving is an ideal protective sleeve for wire bundles, harnesses, pneumatic hoses, hydraulic lines and highly polished or threaded machine parts.



Wrappable Sleeving

GRP-130 and GRP-130NF

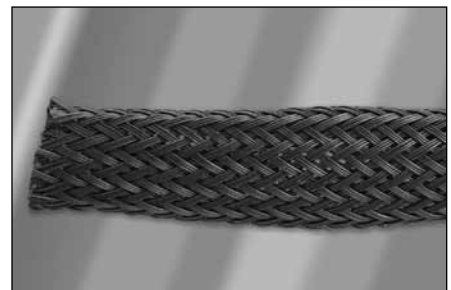
A unique split, semirigid braided construction allows GRP-130 and GRP-130NF sleeving to be installed quickly and easily. The lateral split opens up to accommodate a wide variety of bundling requirements, and then closes around the entire installation without the need for any additional fasteners. The sleeving bends to a tight radius open and, unlike full rigid tubing, will not impair or affect the flexibility of harnesses.



Advanced Protection Expandable Sleeving

GRP-160

This heavy-duty, flexible sleeving is extremely versatile in any industrial application requiring abrasion protection without sacrificing flexibility or durability. GRP-160 sleeving is economical and easy to use, cutting cleanly with a hot knife, and expanding up to 50% for easy installation over plugs and connectors. It resists fuels, UV, solvents, salt water, and most chemicals.



Advanced Chemical-Resistant Expandable Sleeving

GRP-170

GRP-170 is lightweight sleeving, resistant to high temperatures and virtually impervious to solvents. The sleeving resists all known solvents below 200°C chemical resistance, is inert to steam, strong bases, fuels, and acids, and offers high temperature stability, low moisture absorption, excellent dimensional stability and ultra-low wear.

FIT® Wire Management

Better wire management means better harnesses



Maximum Protection Expandable Sleeving

GRP-180

For a thick abrasion guard offering extreme protection against abrasion and cut-through on hoses and cables exposed to harsh conditions. GRP-180 provides fuller coverage for increased resistance to abrasion and penetration, and still expands for easy installation over long lengths. The braided construction allows moisture dissipate quickly to prevent rot and fungus.



Extreme Performance Expandable Sleeving

GRP-200

GRP-200 sleeving uses PTFE to allow the highest levels of performance, including resistance to chemicals, flame, and high temperatures. Thermal stability and low outgassing make it suited to aerospace, military, and high-tech applications. GRP-2000 sleeving is suitable for plenum applications.



Expandable Polyester Braided Sleeving

XS-100HD

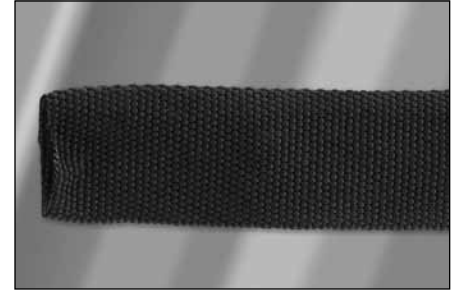
Spirally cut sleeving simplifies wiring, cabling, harnessing, and bundling where breakout or re-entry is required.



Braided Sleeving

XS-200N

Durable overbraiding for military and commercial cable assemblies protects against abrasion, mildew, and aging. Type XS-200N nylon braided self-fitting cable sleeving has been designed to cover and protect both round and flat cable assemblies. The variety of sizes and self-fitting features make selection easy for solving many of the cable assembly design problems found in electronic, electrical, aerospace, process control, and robotic-automation equipment.



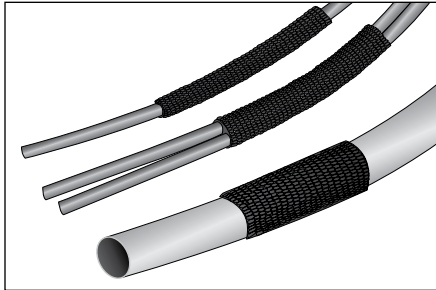
Abrasion-Resistant Nylon Sleeving

XS-300

Tightly woven nylon, with a 45-mil wall thickness, makes XS3000 sleeving the perfect solution for protecting cables, hoses and ropes from weather, sunlight and abrasion damage. The sleeving is resistant to chemicals, UV damage and rot, making it suitable for continuous outdoor use under all weather conditions. The flexible sleeving cuts with a scissor and slides easily over any application.

FIT® Wire Management

Better wire management means better harnesses



Expandable Polyester Webbed Sleeving

ZIP-GRP

ZIP-GRP expandable webbing offers superb flexibility and high tensile strength while providing added protection against flame, chemicals, and abrasion. With its hook and loop fastening, wires, cable assemblies, and wire harnesses are always accessible and can be easily opened for any number of breakouts. To prevent fraying of ends, ZIP-GRP should be cut/sealed with a hot knife.



Lacing Tape

Alpha lacing tapes offer high tensile strength and knot retention. Designed to allow a wider contact area with the insulation so that it remains in place, lacing tape is flexible and easy on the assembler's hands. Once knotted, tape resists slipping and does not increase diameter of harness. Nylon has excellent tensile strength and resists acids, abrasion, flame, and fungus. Polyester has all the characteristics of nylon, but has better resistance to acids, and no appreciable discoloration.



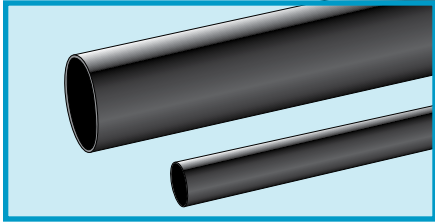
Tinned and Silver-Plated Copper Braid

A tight weave of multistrand, soft drawn copper wire, either tinned or silver plated, copper braid is an ideal shielding material for short-run cables providing easy radial termination. In retrofit applications, provides additional shielding efficiency. Tinned copper flat braid, used as a ground strap, provides an excellent, low-resistance ground path.

FIT® Wire Management

Multipurpose PVC Tubing

PVC-105



UL 224 VW-1
CSA 198
MIL-I-631D Type F, Form U,
Subform Ua, Grade C
ASTM D922

- Flexible wire protection for harnesses and ground straps
- Resistance to heat, oil, and abrasion

Operating Temperature

- -20°C to +105°C

Colors

- Size #24 to 1-1/2 inches: Black, clear
- 2 Inches to 2-1/2 inches: Black

Physical Properties

- Tensile strength: 2780 psi (19.17 N/mm²)
- Elongation: 260%
- Specific gravity: 1.32
- Flammability: UL 224 VW-1

Chemical Properties

- Corrosive effect: non-corrosive
- Fungus resistance: no growth
- UV stable
- Lead free

Electrical Properties

- Dielectric strength: 870 V/mil (343 kV/cm)
- Volume resistivity: 2 x 10¹⁴ ohm-cm
- UL voltage rating
 Sizes #24 to #1: UL rated 300 V
 5/16 to 2 inches: UL rated 600 V

Availability

- See table
- PVC-105-24 to PVC-105-1 are available air spooled on the largest put-ups only

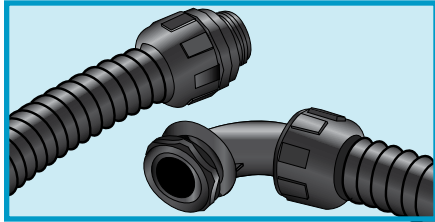
| Part No. | Inside Diameter, Min. | | Inside Diameter, Max. | | Wall Thickness, Nom. | | Standard Put-Ups | |
|---------------|-----------------------|-------|-----------------------|-------|----------------------|------|------------------|-----------|
| | Inch | mm | Inch | mm | Inch | mm | Ft | m |
| PVC-105-24 | 0.022 | 0.56 | 0.027 | 0.69 | 0.012 | 0.30 | 1000 | 305 |
| PVC-105-22 | 0.025 | 0.64 | 0.032 | 0.81 | 0.012 | 0.30 | 100, 1000 | 30.5, 305 |
| PVC-105-20 | 0.032 | 0.81 | 0.039 | 0.99 | 0.016 | 0.41 | 1000 | 305 |
| PVC-105-19 | 0.036 | 0.91 | 0.044 | 1.12 | 0.016 | 0.41 | 1000 | 305 |
| PVC-105-18 | 0.040 | 1.02 | 0.049 | 1.24 | 0.016 | 0.41 | 100, 1000 | 30.5, 305 |
| PVC-105-17 | 0.045 | 1.14 | 0.054 | 1.37 | 0.016 | 0.41 | 100, 1000 | 30.5, 305 |
| PVC-105-16 | 0.051 | 1.30 | 0.061 | 1.55 | 0.016 | 0.41 | 100, 1000 | 30.5, 305 |
| PVC-105-15 | 0.057 | 1.45 | 0.067 | 1.70 | 0.016 | 0.41 | 100, 1000 | 30.5, 305 |
| PVC-105-14 | 0.064 | 1.63 | 0.072 | 1.83 | 0.016 | 0.41 | 100, 500 | 30.5, 152 |
| PVC-105-13 | 0.072 | 1.83 | 0.08 | 2.03 | 0.016 | 0.41 | 100, 500 | 30.5, 152 |
| PVC-105-12 | 0.081 | 2.06 | 0.089 | 2.26 | 0.016 | 0.41 | 500 | 152 |
| PVC-105-11 | 0.091 | 2.31 | 0.101 | 2.57 | 0.016 | 0.41 | 100, 500 | 30.5, 152 |
| PVC-105-10 | 0.102 | 2.59 | 0.112 | 2.84 | 0.016 | 0.41 | 500 | 152 |
| PVC-105-9 | 0.114 | 2.90 | 0.124 | 3.15 | 0.020 | 0.51 | 500 | 152 |
| PVC-105-8 | 0.129 | 3.28 | 0.141 | 3.58 | 0.020 | 0.51 | 100, 500 | 30.5, 152 |
| PVC-105-7 | 0.144 | 3.66 | 0.158 | 4.01 | 0.020 | 0.51 | 100, 500 | 30.5, 152 |
| PVC-105-6 | 0.162 | 4.11 | 0.178 | 4.52 | 0.020 | 0.51 | 100, 500 | 30.5, 152 |
| PVC-105-5 | 0.183 | 4.65 | 0.198 | 5.03 | 0.020 | 0.51 | 100, 500 | 30.5, 152 |
| PVC-105-4 | 0.204 | 5.18 | 0.224 | 5.69 | 0.020 | 0.51 | 100, 250 | 30.5, 76 |
| PVC-105-3 | 0.229 | 5.82 | 0.249 | 6.32 | 0.020 | 0.51 | 100, 250 | 30.5, 76 |
| PVC-105-2 | 0.258 | 6.55 | 0.278 | 7.06 | 0.020 | 0.51 | 250 | 76 |
| PVC-105-1 | 0.289 | 7.34 | 0.311 | 7.90 | 0.020 | 0.51 | 100, 250 | 30.5, 76 |
| PVC-105-5/16 | 0.313 | 7.95 | 0.334 | 8.48 | 0.025 | 0.64 | 100, 250 | 30.5, 76 |
| PVC105-0 | 0.325 | 8.26 | 0.347 | 8.81 | 0.020 | 0.51 | 100, 250 | 30.5, 76 |
| PVC-105-3/8 | 0.375 | 9.53 | 0.399 | 10.13 | 0.025 | 0.64 | 100, 250 | 30.5, 76 |
| PVC-105-7/16 | 0.438 | 11.13 | 0.462 | 11.73 | 0.025 | 0.64 | 100 | 30.5 |
| PVC-105-1/2A | 0.500 | 12.70 | 0.524 | 13.31 | 0.025 | 0.64 | 100 | 30.5 |
| PVC-105-9/16 | 0.562 | 14.27 | 0.592 | 15.04 | 0.030 | 0.76 | 100 | 30.5 |
| PVC-105-5/8 | 0.625 | 15.88 | 0.655 | 16.64 | 0.030 | 0.76 | 100 | 30.5 |
| PVC-105-3/4 | 0.750 | 19.05 | 0.786 | 19.96 | 0.035 | 0.89 | 50 | 15.2 |
| PVC-105-7/8 | 0.875 | 22.23 | 0.911 | 23.14 | 0.035 | 0.89 | 50 | 15.2 |
| PVC-105-1IN | 1.000 | 25.40 | 1.036 | 26.31 | 0.035 | 0.89 | 50 | 15.2 |
| PVC-105-1-1/8 | 1.125 | 28.58 | 1.161 | 29.49 | 0.010 | 0.25 | 50 | 15.2 |
| PVC-105-1-1/4 | 1.250 | 31.75 | 1.29 | 32.77 | 0.040 | 1.02 | 50 | 15.2 |
| PVC-105-1-1/2 | 1.500 | 38.10 | 1.55 | 39.37 | 0.045 | 1.14 | 50 | 15.2 |
| PVC-105-2IN | 2.000 | 50.80 | 2.07 | 52.58 | 0.060 | 1.52 | 50 | 15.2 |
| PVC-105-2-1/2 | 2.500 | 63.50 | 2.53 | 64.26 | 0.070 | 1.78 | 50 | 15.2 |



FIT® Wire Management

Flexible Liquid-Tight PVC Tubing

FNT Tubing



UL 1696
CSA C22.2 No. 227.3-05

Operating Temperature

- -18°C to +50°C

Color

- Black

Materials

- Liquid-tight PVC tubing

Chemical Properties

- Corrosive effect: none
- Fungus resistance: no growth
- Resists oil and water
- Lead free

Availability

25 ft (7.5 m)
100 ft (30.5 m)

PVC Tubing

| Part No. | Trade Size | Inside Diameter, Min. | | Inside Diameter, Max. | | Outside Diameter, Min. | | Outside Diameter, Max. | |
|-----------------|------------|-----------------------|-------|-----------------------|-------|------------------------|-------|------------------------|-------|
| | | Inch | mm | Inch | mm | Inch | mm | Inch | mm |
| FNT-1/4* | 1/4 | 0.385 | 9.78 | 0.405 | 10.29 | 0.560 | 14.22 | 0.575 | 14.61 |
| FNT-3/8 | 3/8 | 0.484 | 12.29 | 0.504 | 12.80 | 0.690 | 17.53 | 0.710 | 18.03 |
| FNT-1/2 | 1/2 | 0.622 | 15.80 | 0.642 | 16.31 | 0.820 | 20.83 | 0.840 | 21.34 |
| FNT-3/4 | 3/4 | 0.820 | 20.83 | 0.840 | 21.34 | 1.030 | 26.16 | 1.050 | 26.67 |
| FNT-1 | 1 | 1.041 | 26.44 | 1.066 | 27.08 | 1.290 | 32.77 | 1.315 | 33.40 |

*Not CSA certified



FIT® Wire Management

Liquid-Tight Nylon Connectors SLC or RLC



| Part No. | | Trade Size | Thread Size |
|----------|---------|------------|-------------|
| Straight | 90° | | |
| SLC-1/4* | — | 1/4 | — |
| SLC-3/8 | RLC-3/8 | 3/8 | 1/2 NPT |
| SLC-1/2 | RLC-1/2 | 1/2 | 1/2 NPT |
| SLC-3/4 | RLC-3/4 | 3/4 | 3/4 NPT |
| SLC-1 | RLC-1 | 1 | 1 NPT |

*Snap-on connector, not CSA certified

Operating Temperature

- +125°C

Color

- Black

Materials

- Nylon connector
- Supplied with o-ring and steel locking nut

Properties

- Resists salt water, weak acids, gasoline, alcohol, oil, grease, and common solvents
- Flammability rating: UL 94V-2

Availability

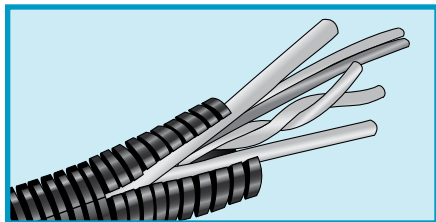
- 10-piece packages
- 100-piece packages



FIT® Wire Management

Convoluted Slit Loom Tubing

Type 492



- Abrasion and fluid resistant
- Light weight
- Easy, flexible cable breakouts

| Part No. | Inside Diameter, Min. | | Inside Diameter, Max. | | Outside Diameter, Min. | | Outside Diameter, Max. | |
|---------------|-----------------------|-------|-----------------------|-------|------------------------|-------|------------------------|-------|
| | Inch | mm | Inch | mm | Inch | mm | Inch | mm |
| 492250 | 0.256 | 6.50 | 0.276 | 7.01 | 0.373 | 9.47 | 0.398 | 10.11 |
| 492350 | 0.341 | 8.66 | 0.38 | 9.65 | 0.496 | 12.60 | 0.526 | 13.36 |
| 492413 | 0.399 | 10.13 | 0.437 | 11.10 | 0.569 | 14.45 | 0.597 | 15.16 |
| 492500 | 0.473 | 12.01 | 0.516 | 13.11 | 0.664 | 16.87 | 0.70 | 17.78 |
| 492625 | 0.603 | 15.32 | 0.639 | 16.23 | 0.802 | 20.37 | 0.837 | 21.26 |
| 492750 | 0.707 | 17.96 | 0.759 | 19.28 | 0.95 | 24.13 | 0.989 | 25.12 |
| 492100 | 1.020 | 25.91 | 1.069 | 27.15 | 1.251 | 31.78 | 1.304 | 33.12 |
| 492150 | 1.566 | 39.78 | 1.647 | 41.83 | 1.867 | 47.42 | 1.947 | 49.45 |
| 492200 | 1.969 | 50.01 | 2.038 | 51.77 | 2.285 | 58.04 | 2.388 | 60.66 |

Operating Temperature

- -40°C to +93°C

Color

- Black

Material

- Polyethylene

Chemical Properties

- Corrosive effect: none
- Fungus resistance: no growth
- Lead free

Electrical Properties

- Volume resistivity: 10¹⁵ ohm-cm

Availability

100 ft (30.5 m)



FIT® Wire Management

Loom Tee Connector Fittings

Type 493



| Part No. | Mating Loom Size | | | | | |
|---------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| | Left | | Center | | Right | |
| | Inch | mm | Inch | mm | Inch | mm |
| 493100 | 0.413 or 0.500 | 10.49 or 12.70 | 0.413 or 0.500 | 10.49 or 12.70 | 0.413 or 0.500 | 10.49 or 12.70 |
| 493101 | 0.500 | 12.70 | 0.350 | 8.89 | 0.750 | 19.05 |
| 493102 | 0.500 | 12.70 | 0.413 | 10.49 | 0.750 | 19.05 |
| 493103 | 0.750 | 19.05 | 0.500 | 12.70 | 0.750 | 19.05 |
| 493110 | 0.413 | 10.49 | 0.350 | 8.89 | 0.350 | 8.89 |
| 493118 | 1.000 | 25.40 | 0.625 | 15.88 | 0.100 | 2.54 |

Operating Temperature

- -40°C to +90°C

Color

- Black

Material

- Polypropylene

Chemical Properties

- Corrosive effect: none
- Fungus resistance: no growth
- Lead free

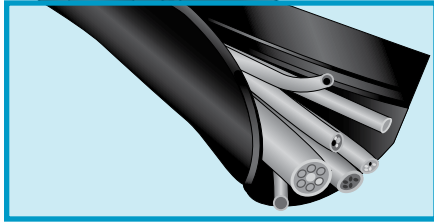
Availability

Single pieces

FIT® Wire Management

Zipper Tubing™

ZIP-41



**MIL-I-631
UL 224 VW-1**



Loc-Trac® provides an effective closure that is ideal for use where the assembly will be subjected to random flexing.

Protection against flame, chemicals, and abrasion.

Operating Temperature

- -20°C to +105°C

Color

- Black

Material

- PVC

Physical Properties

- Tensile strength: 1800 psi (12.4 N/mm²)
- Elongation: 200% min.
- Flammability: UL VW-1

Chemical Properties

- Fungus resistance: no growth
- Lead free

Electrical Properties

- Dielectric strength: 700 V/mil (275.8 kV/cm)
- Volume resistivity: 10¹⁰ ohms/cm

Availability

25 ft (30.5 m)
100 ft (30.5 m)

Each spool comes with two Loc-Trac fasteners and installation instructions.

| Part No. | Inside Diameter, Nom. | | Wall Thickness, Nom. | | Flat Width, Nom. | |
|---------------------|-----------------------|-------|----------------------|------|------------------|--------|
| | Inch | mm | Inch | mm | Inch | mm |
| ZIP-41-1/2 | 0.500 | 12.70 | 0.020 | 0.51 | 2.000 | 50.80 |
| ZIP-41-5/8 | 0.625 | 15.88 | 0.020 | 0.51 | 2.375 | 60.33 |
| ZIP-41-3/4 | 0.750 | 19.05 | 0.020 | 0.51 | 2.750 | 69.85 |
| ZIP-41-7/8 | 0.875 | 22.23 | 0.020 | 0.51 | 3.125 | 79.38 |
| ZIP-41-1IN | 1.000 | 25.40 | 0.020 | 0.51 | 3.562 | 90.47 |
| ZIP-41-1-1/4 | 1.250 | 31.75 | 0.020 | 0.51 | 4.125 | 104.78 |
| ZIP-41-1-1/2 | 1.500 | 38.10 | 0.020 | 0.51 | 4.875 | 123.83 |
| ZIP-41-1-3/4 | 1.750 | 44.45 | 0.020 | 0.51 | 5.625 | 142.88 |
| ZIP-41-2IN | 2.000 | 50.80 | 0.020 | 0.51 | 6.375 | 161.93 |
| ZIP-41-2-1/4 | 2.250 | 57.15 | 0.020 | 0.51 | 7.500 | 190.50 |
| ZIP-41-3IN | 3.000 | 76.20 | 0.020 | 0.51 | 10.000 | 254.00 |

FIT® Wire Management

Spiral Wrap Tubing SW



- Flexible cable bundling
- Easy breakouts

See table for specifications

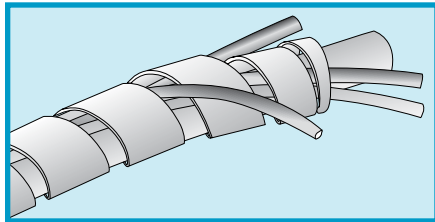
| | SW-1 to SW-6 | SW-10 to SW-14 | SW-20 to SW-25 | SW-30 to SW-35 | SW-40 to SW-45 | SW-50 to SW-53 |
|--|---|--|---|--|--|--------------------|
| Material | Natural Polyethylene | Flame-Retardant Polyethylene | Nylon | PTFE | UV-Resistant Polyethylene | PVC |
| Colors | Natural | White | Natural | Natural, Black | Black | Black |
| Temperature Range (°C) | -66 to +88 | -20 to +80 | -40 to +121 | -268 to +260 | -66 to +88 | -20 to +80 |
| Abrasion Resistance (Taber) | 22 | 27 | 6 - 8 | 7 | 20 | Excellent |
| Flame Rating | Not rated | UL 1441 Self-extinguishing | Self-extinguishing | UL VW-1 | Not rated | Self-extinguishing |
| Tensile Strength (psi (N/mm²)) | 1800 (12.41) | 1300 (8.96) | 12,000 (82.74) | 3000 (20.68) | 2000 (13.79) | 3000 (20.68) |
| Water Absorption (%) | 0.014 | 0.02 | 1.5 | 0.005 | 0.03 | — |
| Dielectric Constant (Max.) | — | 2.58 | 4.0 | 2.1 | — | — |
| Effects of Alkalis and Acids | None | None | None | None | None | Satisfactory* |
| Weather Resistance | N/A | N/A | N/A | Excellent | N/A | N/A |
| Specs | UL UZKX2 MIL-I-631D, Type A, Form U MIL-P-21922B ASTM 1248-65T Type 1 Class A, Grade 3 A-A-59602, Type 1, Class 1 | UL UZKX2 A-A-59602, Type 1, Class 3 | UL UZKX2 ASTM-D-4066, Group 2, Class 1 | UL UZKX2 ASTM-D-3295-01, Group 4 A-A-59602, Type 3, Class 1 (as noted) | UL UZKX2 MIL-I-631D, Type A, Form U MIL-P-21922B, Type 1 Class L A-A-59602, Type 1, Class 2 | — |

*Satisfactory except for high concentrations; not recommended for organic solvents.

FIT® Wire Management

Spiral Wrap Tubing

SW



- Flexible cable bundling
- Easy breakouts

See table for specifications

| Part No. | Material | Trade Size | Outside Diameter, Nom. | | Wall Thickness, Nom. | | Right-Hand Pitch, Nom. | | Standard Put-Ups* | |
|----------|------------|------------|------------------------|-------|----------------------|------|------------------------|-------|-------------------|----------------|
| | | | Inch | mm | Inch | mm | Inch | mm | Ft | m |
| SW-1 | Natural PE | 1/8 | 0.125 | 3.18 | 0.032 | 0.81 | 0.187 | 4.75 | 25, 100, 500 | 7.6, 30.5, 152 |
| SW-2 | Natural PE | 1/4 | 0.250 | 6.35 | 0.045 | 1.14 | 0.375 | 9.53 | 25, 100, 500 | 7.6, 30.5, 152 |
| SW-3 | Natural PE | 3/8 | 0.375 | 9.53 | 0.052 | 1.32 | 0.438 | 11.13 | 25, 100 | 7.6, 30.5 |
| SW-4 | Natural PE | 1/2 | 0.500 | 12.70 | 0.062 | 1.57 | 0.563 | 14.30 | 25, 100 | 7.6, 30.5 |
| SW-5 | Natural PE | 3/4 | 0.750 | 19.05 | 0.065 | 1.65 | 0.750 | 19.05 | 25, 100, 500 | 7.6, 30.5, 152 |
| SW-6 | Natural PE | 1 | 1.000 | 25.40 | 0.080 | 2.03 | 1.000 | 25.40 | 25, 100, 500 | 7.6, 30.5, 152 |
| SW-10 | FR PE | 1/8 | 0.125 | 3.18 | 0.032 | 0.81 | 0.187 | 4.75 | 25, 100, 500 | 7.6, 30.5, 152 |
| SW-11 | FR PE | 1/4 | 0.250 | 6.35 | 0.045 | 1.14 | 0.375 | 9.53 | 25, 100, 500 | 7.6, 30.5, 152 |
| SW-12 | FR PE | 3/8 | 0.375 | 9.53 | 0.052 | 1.32 | 0.438 | 11.13 | 25, 100 | 7.6, 30.5 |
| SW-13 | FR PE | 1/2 | 0.500 | 12.70 | 0.062 | 1.57 | 0.563 | 14.30 | 25, 100 | 7.6, 30.5 |
| SW-14 | FR PE | 3/4 | 0.750 | 19.05 | 0.065 | 1.65 | 0.750 | 19.05 | 25, 100 | 7.6, 30.5 |
| SW-20 | Nylon | 1/8 | 0.125 | 3.18 | 0.015 | 0.38 | 0.187 | 4.75 | 25, 100, 500 | 7.6, 30.5, 152 |
| SW-21 | Nylon | 1/4 | 0.250 | 6.35 | 0.025 | 0.64 | 0.375 | 9.53 | 25, 100, 500 | 7.6, 30.5, 152 |
| SW-22 | Nylon | 3/8 | 0.375 | 9.53 | 0.035 | 0.89 | 0.438 | 11.13 | 25, 100 | 7.6, 30.5 |
| SW-23 | Nylon | 1/2 | 0.500 | 12.70 | 0.035 | 0.89 | 0.500 | 12.70 | 25, 100 | 7.6, 30.5 |
| SW-24 | Nylon | 3/4 | 0.750 | 19.05 | 0.032 | 0.81 | 0.750 | 19.05 | 25, 100, 500 | 7.6, 30.5, 152 |
| SW-25 | Nylon | 1 | 1.000 | 25.40 | 0.032 | 0.81 | 1.000 | 25.40 | 25, 100 | 7.6, 30.5 |
| SW-30 | PTFE | 1/8 | 0.125 | 3.18 | 0.030 | 0.76 | 0.187 | 4.75 | 25, 100 | 7.6, 30.5 |
| SW-31 | PTFE | 1/4 | 0.250 | 6.35 | 0.030 | 0.76 | 0.375 | 9.53 | 25, 100 | 7.6, 30.5 |
| SW-32** | PTFE | 3/8 | 0.375 | 9.53 | 0.030 | 0.76 | 0.438 | 11.13 | 25, 100 | 7.6, 30.5 |
| SW-33** | PTFE | 1/2 | 0.500 | 12.70 | 0.030 | 0.76 | 0.500 | 12.70 | 25, 100 | 7.6, 30.5 |
| SW-34** | PTFE | 3/4 | 0.750 | 19.05 | 0.032 | 0.81 | 0.750 | 19.05 | 25, 100 | 7.6, 30.5 |
| SW-35 | PTFE | 1 | 1.000 | 25.40 | 0.040 | 1.02 | 1.000 | 25.40 | 25, 100 | 7.6, 30.5 |
| SW-40 | UV-Res. PE | 1/8 | 0.125 | 3.18 | 0.032 | 0.81 | 0.187 | 4.75 | 25, 100, 500 | 7.6, 30.5, 152 |
| SW-41 | UV-Res. PE | 1/4 | 0.250 | 6.35 | 0.045 | 1.14 | 0.375 | 9.53 | 25, 100, 500 | 7.6, 30.5, 152 |
| SW-42 | UV-Res. PE | 3/8 | 0.375 | 9.53 | 0.052 | 1.32 | 0.438 | 11.13 | 25, 100 | 7.6, 30.5 |
| SW-43 | UV-Res. PE | 1/2 | 0.500 | 12.70 | 0.062 | 1.57 | 0.500 | 12.70 | 25, 100 | 7.6, 30.5 |
| SW-44 | UV-Res. PE | 3/4 | 0.750 | 19.05 | 0.065 | 1.65 | 0.750 | 19.05 | 25, 100, 500 | 7.6, 30.5, 152 |
| SW-45 | UV-Res. PE | 1 | 1.000 | 25.40 | 0.080 | 2.03 | 1.000 | 25.40 | 25, 100, 500 | 7.6, 30.5, 152 |
| SW-50 | PVC | 1/8 | 0.125 | 3.18 | 0.032 | 0.81 | 0.187 | 4.75 | 25, 100 | 7.6, 30.5 |
| SW-51 | PVC | 1/4 | 0.250 | 6.35 | 0.045 | 1.14 | 0.375 | 9.53 | 25, 100 | 7.6, 30.5 |
| SW-52 | PVC | 3/8 | 0.375 | 9.53 | 0.052 | 1.32 | 0.438 | 11.13 | 25, 100 | 7.6, 30.5 |
| SW-53 | PVC | 1/2 | 0.500 | 12.70 | 0.062 | 1.57 | 0.500 | 12.70 | 25, 100 | 7.6, 30.5 |

*May contain multiple lengths.

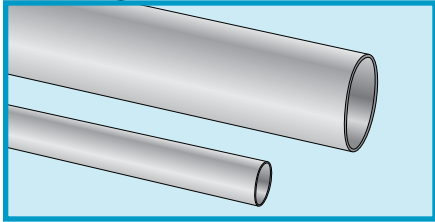
**Does not meet A-A-59602 Type 3 Class 1



FIT® Wire Management

Flexible PTFE Thin-Wall Tubing

TFT-200



**ASTM D 3295-81a Type I
Class B
AMS 3655**

- Flexible wire protection for harnesses and ground straps
- Resistance to heat, oil, and abrasion

Operating Temperature

- -75°C to +260°C

Color

- Natural

Material

- PTFE

Physical Properties

- Tensile strength: 2000 psi (13.7 N/mm²)
- Elongation: 200% min.
- Specific gravity: 2.18
- Flammability rating: UL 94V-0

Chemical Properties

- Corrosive effect: none
- Fungus resistance: no growth
- Water absorption: 0.01%
- Lead free

Electrical Properties

- Dielectric strength: 1400 V/mil (55 kV/cm)
- Volume resistivity: 10¹⁸ ohm-cm
- Dielectric constant: 2.1

Availability

See table

Spools may contain multiple lengths

TFT-200-7 and larger supplied as coils

| Part No. | Inside Diameter, Min. | | Inside Diameter, Max. | | Wall Thickness, Min. | | Standard Put-Ups | |
|------------|-----------------------|------|-----------------------|------|----------------------|------|------------------|----------------|
| | Inch | mm | Inch | mm | Inch | mm | Ft | m |
| TFT-200-30 | 0.010 | 0.25 | 0.015 | 0.38 | 0.009 | 0.23 | 100, 500, 1000 | 30.5, 152, 305 |
| TFT-200-28 | 0.013 | 0.33 | 0.018 | 0.46 | 0.009 | 0.23 | 100, 500, 1000 | 30.5, 152, 305 |
| TFT-200-26 | 0.016 | 0.41 | 0.021 | 0.53 | 0.009 | 0.23 | 100, 500, 1000 | 30.5, 152, 305 |
| TFT-200-24 | 0.020 | 0.51 | 0.026 | 0.66 | 0.010 | 0.25 | 100, 500, 1000 | 30.5, 152, 305 |
| TFT-200-22 | 0.026 | 0.66 | 0.032 | 0.81 | 0.010 | 0.25 | 100, 500, 1000 | 30.5, 152, 305 |
| TFT-200-20 | 0.032 | 0.81 | 0.04 | 1.02 | 0.012 | 0.30 | 100, 500, 1000 | 30.5, 152, 305 |
| TFT-200-19 | 0.036 | 0.91 | 0.042 | 1.07 | 0.012 | 0.30 | 100, 1000 | 30.5, 305 |
| TFT-200-18 | 0.040 | 1.02 | 0.046 | 1.17 | 0.012 | 0.30 | 100, 500, 1000 | 30.5, 152, 305 |
| TFT-200-17 | 0.045 | 1.14 | 0.052 | 1.32 | 0.012 | 0.30 | 100, 500, 1000 | 30.5, 152, 305 |
| TFT-200-16 | 0.051 | 1.30 | 0.058 | 1.47 | 0.012 | 0.30 | 100, 1000 | 30.5, 305 |
| TFT-200-15 | 0.057 | 1.45 | 0.065 | 1.65 | 0.012 | 0.30 | 100, 1000 | 30.5, 305 |
| TFT-200-14 | 0.064 | 1.63 | 0.072 | 1.83 | 0.012 | 0.30 | 100, 500 | 30.5, 152 |
| TFT-200-13 | 0.072 | 1.83 | 0.081 | 2.06 | 0.012 | 0.30 | 100, 500 | 30.5, 152 |
| TFT-200-12 | 0.081 | 2.06 | 0.091 | 2.31 | 0.012 | 0.30 | 100, 500 | 30.5, 152 |
| TFT-200-11 | 0.091 | 2.31 | 0.101 | 2.57 | 0.012 | 0.30 | 100, 500 | 30.5, 152 |
| TFT-200-10 | 0.102 | 2.59 | 0.112 | 2.84 | 0.012 | 0.30 | 100, 500 | 30.5, 152 |
| TFT-200-9 | 0.114 | 2.90 | 0.124 | 3.15 | 0.012 | 0.30 | 100, 500 | 30.5, 152 |
| TFT-200-8 | 0.129 | 3.28 | 0.139 | 3.53 | 0.015 | 0.38 | 100 | 30.5 |
| TFT-200-7 | 0.144 | 3.66 | 0.155 | 3.94 | 0.015 | 0.38 | 100 | 30.5 |
| TFT-200-6 | 0.162 | 4.11 | 0.174 | 4.42 | 0.015 | 0.38 | 100* | 30.5* |
| TFT-200-5 | 0.182 | 4.62 | 0.195 | 4.95 | 0.015 | 0.38 | 100* | 30.5* |
| TFT-200-4 | 0.204 | 5.18 | 0.218 | 5.54 | 0.015 | 0.38 | 100* | 30.5* |
| TFT-200-3 | 0.229 | 5.82 | 0.244 | 6.20 | 0.015 | 0.38 | 100* | 30.5* |
| TFT-200-2 | 0.258 | 6.55 | 0.273 | 6.93 | 0.015 | 0.38 | 100* | 30.5* |
| TFT-200-1 | 0.289 | 7.34 | 0.305 | 7.75 | 0.015 | 0.38 | 100* | 30.5* |
| TFT-200-0 | 0.325 | 8.26 | 0.342 | 8.69 | 0.015 | 0.38 | 100* | 30.5* |

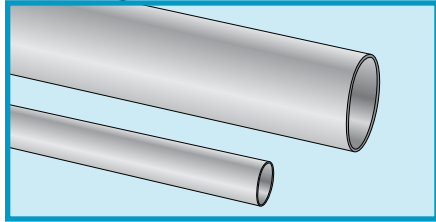
*Supplied as coils.



FIT® Wire Management

Flexible PTFE Standard-Wall Tubing

TFT-250



ASTM D 3295-81a Type I Class C MIL-I-22129

- Excellent heat and chemical resistance
- Flexible wire protection for harnesses and ground straps
- Resistance to heat, oil, and abrasion

Operating Temperature

- -75°C to +260°C

Color

- Natural

Material

- PTFE

Physical Properties

- Tensile strength: 2000 psi (13.7 N/mm²)
- Elongation: 200% min.
- Specific gravity: 2.18
- Flammability rating: UL 94V-0

Chemical Properties

- Corrosive effect: none
- Fungus resistance: no growth
- Water absorption: 0.01%
- Lead free

Electrical Properties

- Dielectric strength: 1400 V/mil (551 kV/cm)
- Volume resistivity: 10¹⁸ ohm-cm
- Dielectric constant: 2.1

Availability

See table

Spools may contain multiple lengths

TFT-200-7 and larger supplied as coils

| Part No. | Inside Diameter, Min. | | Inside Diameter, Max. | | Wall Thickness, Min. | | Standard Put-Ups | |
|------------|-----------------------|------|-----------------------|------|----------------------|------|------------------|----------------|
| | Inch | mm | Inch | mm | Inch | mm | Ft | m |
| TFT-250-24 | 0.020 | 0.51 | 0.026 | 0.66 | 0.012 | 0.30 | 100, 500, 1000 | 30.5, 152, 305 |
| TFT-250-22 | 0.025 | 0.64 | 0.032 | 0.81 | 0.012 | 0.30 | 100, 500, 1000 | 30.5, 152, 305 |
| TFT-250-20 | 0.032 | 0.81 | 0.040 | 1.02 | 0.016 | 0.41 | 100, 500, 1000 | 30.5, 152, 305 |
| TFT-250-19 | 0.036 | 0.91 | 0.044 | 1.12 | 0.016 | 0.41 | 100, 500, 1000 | 30.5, 152, 305 |
| TFT-250-18 | 0.040 | 1.02 | 0.049 | 1.24 | 0.016 | 0.41 | 100, 500, 1000 | 30.5, 152, 305 |
| TFT-250-17 | 0.045 | 1.14 | 0.054 | 1.37 | 0.016 | 0.41 | 100, 1000 | 30.5, 305 |
| TFT-250-16 | 0.051 | 1.30 | 0.061 | 1.55 | 0.016 | 0.41 | 100, 500, 1000 | 30.5, 152, 305 |
| TFT-250-15 | 0.057 | 1.45 | 0.067 | 1.70 | 0.016 | 0.41 | 100, 500 | 30.5, 152 |
| TFT-250-14 | 0.064 | 1.63 | 0.074 | 1.88 | 0.016 | 0.41 | 100, 500 | 30.5, 152 |
| TFT-250-13 | 0.072 | 1.83 | 0.082 | 2.08 | 0.016 | 0.41 | 100 | 30.5 |
| TFT-250-12 | 0.081 | 2.06 | 0.091 | 2.31 | 0.016 | 0.41 | 100 | 30.5 |
| TFT-250-11 | 0.091 | 2.31 | 0.101 | 2.57 | 0.016 | 0.41 | 100, 500 | 30.5, 152 |
| TFT-250-10 | 0.102 | 2.59 | 0.112 | 2.84 | 0.016 | 0.41 | 100, 500 | 30.5, 152 |
| TFT-250-9 | 0.114 | 2.90 | 0.124 | 3.15 | 0.020 | 0.51 | 100, 500 | 30.5, 152 |
| TFT-250-8 | 0.129 | 3.28 | 0.141 | 3.58 | 0.020 | 0.51 | 100 | 30.5 |
| TFT-250-7 | 0.144 | 3.66 | 0.158 | 4.01 | 0.020 | 0.51 | 100 | 30.5 |
| TFT-250-6 | 0.162 | 4.11 | 0.178 | 4.52 | 0.020 | 0.51 | 100* | 30.5* |
| TFT-250-5 | 0.182 | 4.62 | 0.196 | 4.98 | 0.020 | 0.51 | 100* | 30.5* |
| TFT-250-4 | 0.204 | 5.18 | 0.224 | 5.69 | 0.020 | 0.51 | 100* | 30.5* |
| TFT-250-3 | 0.229 | 5.82 | 0.249 | 6.32 | 0.020 | 0.51 | 100* | 30.5* |
| TFT-250-2 | 0.258 | 6.55 | 0.278 | 7.06 | 0.020 | 0.51 | 100* | 30.5* |
| TFT-250-1 | 0.289 | 7.34 | 0.311 | 7.90 | 0.020 | 0.51 | 100* | 30.5* |
| TFT-250-0 | 0.325 | 8.26 | 0.342 | 8.69 | 0.020 | 0.51 | 100* | 30.5* |

*Supplied as coils.



FIT® Wire Management

Acrylic-Coated Fiberglass Sleeving

AF-155



**MIL-I-3190/3 Grade C1
NEMA TF-1**

Operating Temperature

- -30°C to +155°C

Color

- Natural

Material

- Acrylic-coated fiberglass braid

Physical Properties

- Elongation: 150% min.
- Low-temperature (-10°C) flexing: no cracking

Chemical Properties

- Corrosive effect: none
- Fungus resistance: no growth
- Lead free

Electrical Properties

- Dielectric strength: 2500 V/mil (984 kV/cm)
- Dielectric constant: 2.5
- Volume resistivity: 10¹⁰ ohm-cm

Availability

See table

Spools may contain multiple lengths

| Part No. | Inside Diameter, Min. | | Inside Diameter, Max. | | Wall Thickness, Min. | | Standard Put-Ups | |
|-------------|-----------------------|-------|-----------------------|-------|----------------------|------|------------------|-----------|
| | Inch | mm | Inch | mm | Inch | mm | Ft | m |
| AF-155-24 | 0.020 | 0.51 | 0.027 | 0.69 | 0.006 | 0.15 | 100, 500 | 30.5, 152 |
| AF-155-22 | 0.025 | 0.64 | 0.032 | 0.81 | 0.006 | 0.15 | 100, 500 | 30.5, 152 |
| AF-155-20 | 0.032 | 0.81 | 0.039 | 0.99 | 0.006 | 0.15 | 100, 500 | 30.5, 152 |
| AF-155-18 | 0.040 | 1.02 | 0.049 | 1.24 | 0.006 | 0.15 | 100, 500 | 30.5, 152 |
| AF-155-16 | 0.051 | 1.30 | 0.061 | 1.55 | 0.006 | 0.15 | 100, 500 | 30.5, 152 |
| AF-155-15 | 0.057 | 1.45 | 0.067 | 1.70 | 0.006 | 0.15 | 100, 500 | 30.5, 152 |
| AF-155-14 | 0.064 | 1.63 | 0.074 | 1.88 | 0.006 | 0.15 | 100, 500 | 30.5, 152 |
| AF-155-13 | 0.072 | 1.83 | 0.082 | 2.08 | 0.006 | 0.15 | 100, 250 | 30.5, 76 |
| AF-155-12 | 0.081 | 2.06 | 0.091 | 2.31 | 0.006 | 0.15 | 100, 250 | 30.5, 76 |
| AF-155-11 | 0.091 | 2.31 | 0.101 | 2.57 | 0.008 | 0.20 | 100, 250 | 30.5, 76 |
| AF-155-10 | 0.102 | 2.59 | 0.112 | 2.84 | 0.008 | 0.20 | 100, 250 | 30.5, 76 |
| AF-155-9 | 0.114 | 2.90 | 0.124 | 3.15 | 0.008 | 0.20 | 100, 250 | 30.5, 76 |
| AF-155-8 | 0.129 | 3.28 | 0.141 | 3.58 | 0.008 | 0.20 | 100, 250 | 30.5, 76 |
| AF-155-7 | 0.144 | 3.66 | 0.158 | 4.01 | 0.008 | 0.20 | 100, 250 | 30.5, 76 |
| AF-155-6 | 0.162 | 4.11 | 0.178 | 4.52 | 0.010 | 0.25 | 100, 250 | 30.5, 76 |
| AF-155-5 | 0.182 | 4.62 | 0.198 | 5.03 | 0.010 | 0.25 | 100, 250 | 30.5, 76 |
| AF-155-4 | 0.204 | 5.18 | 0.224 | 5.69 | 0.010 | 0.25 | 100, 250 | 30.5, 76 |
| AF-155-3 | 0.229 | 5.82 | 0.249 | 6.32 | 0.010 | 0.25 | 100, 250 | 30.5, 76 |
| AF-155-2 | 0.258 | 6.55 | 0.278 | 7.06 | 0.010 | 0.25 | 100, 250 | 30.5, 76 |
| AF-155-1 | 0.289 | 7.34 | 0.311 | 7.90 | 0.010 | 0.25 | 100, 125 | 30.5, 38 |
| AF-155-0 | 0.325 | 8.26 | 0.347 | 8.81 | 0.016 | 0.41 | 100, 125 | 30.5, 38 |
| AF-155-3/8 | 0.375 | 9.53 | 0.399 | 10.13 | 0.016 | 0.41 | 125, 250 | 38, 76 |
| AF-155-7/16 | 0.438 | 11.13 | 0.462 | 11.73 | 0.016 | 0.41 | 125 | 38 |
| AF-155-1/2 | 0.500 | 12.70 | 0.524 | 13.31 | 0.016 | 0.41 | 100 | 30.5 |
| AF-155-5/8 | 0.625 | 15.88 | 0.655 | 16.64 | 0.016 | 0.41 | 100 | 30.5 |
| AF-155-3/4 | 0.750 | 19.05 | 0.786 | 19.96 | 0.016 | 0.41 | 100 | 30.5 |
| AF-155-7/8 | 0.875 | 22.23 | 0.911 | 23.14 | 0.016 | 0.41 | 100 | 30.5 |
| AF-155-1IN | 1.000 | 25.40 | 1.036 | 26.31 | 0.016 | 0.41 | 100 | 30.5 |



FIT® Wire Management

PVC-Coated Fiberglass Sleeving

PIF-130



UL 1441 (600 V_{RMS})
UL VW-1
MIL-I-3190/2 Class 130
Type B Category b
NEMA TF-1 Grade A

- High temperature, abrasion, and oil resistance
- Resists fraying, bending, and knotting

Operating Temperature

- -20°C to +130°C

Color

- Black

Material

- PVC-coated fiberglass braid

Chemical Properties

- Corrosive effect: non-corrosive
- Fungus resistance: no growth
- Lead free

Electrical Properties

- Dielectric strength: 5000 V/mil (1968 kV/cm)
- Volume resistivity: 10⁹ ohm-cm

Availability

See tables

Spools may contain multiple lengths

Standard Wall Thickness

| Part No. | Inside Diameter, Min. | | Inside Diameter, Max. | | Wall Thickness, Min. | | Standard Put-Ups | |
|---------------------|-----------------------|-------|-----------------------|-------|----------------------|------|------------------|----------------|
| | Inch | mm | Inch | mm | Inch | mm | Ft | m |
| PIF-130-20 | 0.032 | 0.81 | 0.039 | 0.99 | 0.013 | 0.33 | 100, 500, 1000 | 30.5, 152, 305 |
| PIF-130-18 | 0.040 | 1.02 | 0.049 | 1.24 | 0.015 | 0.38 | 100, 500, 1000 | 30.5, 152, 305 |
| PIF-130-16 | 0.051 | 1.30 | 0.061 | 1.55 | 0.015 | 0.38 | 100, 1000 | 30.5, 305 |
| PIF-130-14 | 0.064 | 1.63 | 0.074 | 1.88 | 0.015 | 0.38 | 100 | 30.5 |
| PIF-130-12 | 0.081 | 2.06 | 0.091 | 2.31 | 0.015 | 0.38 | 100, 500 | 30.5, 152 |
| PIF-130-10 | 0.102 | 2.59 | 0.112 | 2.84 | 0.018 | 0.46 | 100, 500 | 30.5, 152 |
| PIF-130-8 | 0.129 | 3.28 | 0.141 | 3.58 | 0.018 | 0.46 | 100, 500 | 30.5, 152 |
| PIF-130-6 | 0.162 | 4.11 | 0.178 | 4.52 | 0.020 | 0.51 | 100, 250 | 30.5, 76 |
| PIF-130-4 | 0.204 | 5.18 | 0.224 | 5.69 | 0.020 | 0.51 | 100, 250 | 30.5, 76 |
| PIF-130-2 | 0.258 | 6.55 | 0.278 | 7.06 | 0.020 | 0.51 | 100, 250 | 30.5, 76 |
| PIF-130-0 | 0.325 | 8.26 | 0.347 | 8.81 | 0.025 | 0.64 | 100 | 30.5 |
| PIF-130-3/8 | 0.375 | 9.53 | 0.399 | 10.13 | 0.025 | 0.64 | 100 | 30.5 |
| PIF-130-7/16 | 0.438 | 11.13 | 0.462 | 11.73 | 0.025 | 0.64 | 100 | 30.5 |
| PIF-130-1/2A | 0.500 | 12.70 | 0.524 | 13.31 | 0.025 | 0.64 | 100 | 30.5 |
| PIF-130-5/8 | 0.625 | 15.88 | 0.655 | 16.64 | 0.025 | 0.64 | 100 | 30.5 |
| PIF-130-3/4 | 0.750 | 19.05 | 0.786 | 19.96 | 0.025 | 0.64 | 100 | 30.5 |
| PIF-130-7/8 | 0.875 | 22.23 | 0.911 | 23.14 | 0.025 | 0.64 | 100 | 30.5 |
| PIF-130-1IN | 1.000 | 25.40 | 1.036 | 26.31 | 0.025 | 0.64 | 100 | 30.5 |



FIT® Wire Management

Silicone-Coated Fiberglass Sleeving

PIF-200, SF-200



**UL 1441 (600 V_{RMS})
MIL-I-3190/6 Class 20 Type D
Category C
NEMA TF-1 Grade A**

- Highly flexible routing
- Extreme abrasion resistance
- Superior electrical properties

Operating Temperature

- -70°C to +200°C

Color

- Natural

Material

- Silicone rubber-coated fiberglass braid

Physical Properties

- Tensile strength: 1200 psi (8.2 N/mm²)
- Elongation: 420% min.

Chemical Properties

- Corrosive effect: none
- Fungus resistance: no growth
- Lead free

Electrical Properties

- Dielectric strength: 15,000 V/mil (5905 kV/cm)
- Volume resistivity: 6 x 10¹³ ohm-cm
- Dielectric constant: 2.8

Availability

See table

Spools may contain multiple lengths

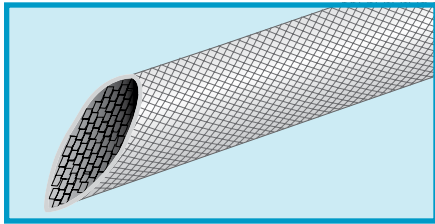
| Part No. | Inside Diameter, Min. | | Inside Diameter, Max. | | Wall Thickness, Min. | | Standard Put-Ups | |
|--------------|-----------------------|-------|-----------------------|-------|----------------------|------|------------------|----------------|
| | Inch | mm | Inch | mm | Inch | mm | Ft | m |
| PIF-200-24 | 0.020 | 0.51 | 0.027 | 0.69 | 0.011 | 0.28 | 100, 500, 1000 | 30.5, 152, 305 |
| PIF-200-22 | 0.025 | 0.64 | 0.032 | 0.81 | 0.013 | 0.33 | 100, 500, 1000 | 30.5, 152, 305 |
| PIF-200-20 | 0.032 | 0.81 | 0.039 | 0.99 | 0.013 | 0.33 | 100, 500, 1000 | 30.5, 152, 305 |
| PIF-200-18 | 0.040 | 1.02 | 0.049 | 1.24 | 0.015 | 0.38 | 100, 500, 1000 | 30.5, 152, 305 |
| PIF-200-17 | 0.045 | 1.14 | 0.054 | 1.37 | 0.015 | 0.38 | 500, 1000 | 152, 305 |
| PIF-200-16 | 0.051 | 1.30 | 0.061 | 1.55 | 0.015 | 0.38 | 100, 500, 1000 | 30.5, 152, 305 |
| PIF-200-15 | 0.057 | 1.45 | 0.067 | 1.70 | 0.015 | 0.38 | 100, 1000 | 30.5, 305 |
| PIF-200-14 | 0.064 | 1.63 | 0.074 | 1.88 | 0.015 | 0.38 | 100, 500 | 30.5, 152 |
| PIF-200-13 | 0.072 | 1.83 | 0.082 | 2.08 | 0.015 | 0.38 | 100, 500 | 30.5, 152 |
| PIF-200-12 | 0.081 | 2.06 | 0.091 | 2.31 | 0.015 | 0.38 | 100, 500 | 30.5, 152 |
| PIF-200-11 | 0.091 | 2.31 | 0.101 | 2.57 | 0.018 | 0.46 | 500 | 152 |
| PIF-200-10 | 0.102 | 2.59 | 0.112 | 2.84 | 0.018 | 0.46 | 100, 500 | 30.5, 152 |
| PIF-200-9 | 0.114 | 2.90 | 0.124 | 3.15 | 0.018 | 0.46 | 100, 500 | 30.5, 152 |
| PIF-200-8 | 0.129 | 3.28 | 0.141 | 3.58 | 0.018 | 0.46 | 100, 500 | 30.5, 152 |
| PIF-200-7 | 0.144 | 3.66 | 0.158 | 4.01 | 0.018 | 0.46 | 100, 500 | 30.5, 152 |
| PIF-200-6 | 0.162 | 4.11 | 0.178 | 4.52 | 0.020 | 0.51 | 25, 100 | 7.6, 30.5 |
| PIF-200-5 | 0.182 | 4.62 | 0.198 | 5.03 | 0.020 | 0.51 | 25, 100 | 7.6, 30.5 |
| PIF-200-4 | 0.204 | 5.18 | 0.224 | 5.69 | 0.020 | 0.51 | 100 | 30.5 |
| PIF-200-3 | 0.229 | 5.82 | 0.249 | 6.32 | 0.020 | 0.51 | 25, 100 | 7.6, 30.5 |
| PIF-200-2 | 0.258 | 6.55 | 0.278 | 7.06 | 0.020 | 0.51 | 25, 100 | 7.6, 30.5 |
| PIF-200-1 | 0.289 | 7.34 | 0.311 | 7.90 | 0.020 | 0.51 | 100 | 30.5 |
| PIF-200-0 | 0.313 | 7.95 | 0.347 | 8.81 | 0.020 | 0.51 | 100 | 30.5 |
| PIF-200-3/8 | 0.375 | 9.53 | 0.398 | 10.11 | 0.025 | 0.64 | 25, 100 | 7.6, 30.5 |
| PIF-200-7/16 | 0.438 | 11.13 | 0.462 | 11.73 | 0.025 | 0.64 | 25, 100 | 7.6, 30.5 |
| PIF-200-1/2A | 0.500 | 12.70 | 0.524 | 13.31 | 0.025 | 0.64 | 25, 100 | 7.6, 30.5 |
| PIF-200-5/8 | 0.625 | 15.88 | 0.655 | 16.64 | 0.025 | 0.64 | 25, 100 | 7.6, 30.5 |
| SF-200-3/4 | 0.750 | 19.05 | 0.786 | 19.96 | 0.025 | 0.64 | 100 | 30.5 |
| SF-200-7/8 | 0.875 | 22.23 | 0.911 | 23.14 | 0.025 | 0.64 | 100 | 30.5 |
| SF-200-1IN | 1.000 | 25.40 | 1.036 | 26.31 | 0.025 | 0.64 | 100 | 30.5 |



FIT® Wire Management

Uncoated Fiberglass Sleeving

PIF-240



UL 1441 (500 V_{RMS})
UL VW-1
MIL-Y-1140
ASTM D 350/372 Class C

- Extreme flexibility
- Extreme heat environments

Operating Temperature

- -60°C to +648°C

Color

- Natural

Material

- Heat-annealed braided fiberglass

Chemical Properties

- Corrosive effect: none
- Fungus resistance: no growth
- Lead free

Electrical Properties

- Volume resistivity: 10¹⁵ ohm-cm

Availability

100 ft (30.5 m)

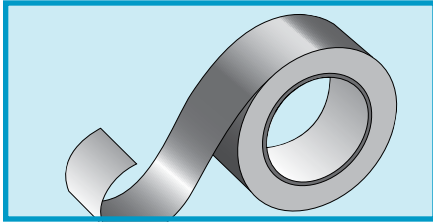
Spools may contain multiple lengths

| Part No. | Inside Diameter, Min. | | Inside Diameter, Max. | | Wall Thickness, Min. | |
|--------------|-----------------------|-------|-----------------------|-------|----------------------|------|
| | Inch | mm | Inch | mm | Inch | mm |
| PIF-240-20 | 0.032 | 0.81 | 0.039 | 0.99 | 0.009 | 0.23 |
| PIF-240-18 | 0.040 | 1.02 | 0.049 | 1.24 | 0.011 | 0.28 |
| PIF-240-16 | 0.051 | 1.30 | 0.061 | 1.55 | 0.011 | 0.28 |
| PIF-240-15 | 0.057 | 1.45 | 0.067 | 1.70 | 0.011 | 0.28 |
| PIF-240-14 | 0.064 | 1.63 | 0.074 | 1.88 | 0.011 | 0.28 |
| PIF-240-12 | 0.081 | 2.06 | 0.091 | 2.31 | 0.011 | 0.28 |
| PIF-240-11 | 0.091 | 2.31 | 0.101 | 2.57 | 0.011 | 0.28 |
| PIF-240-10 | 0.102 | 2.59 | 0.112 | 2.84 | 0.011 | 0.28 |
| PIF-240-9 | 0.114 | 2.90 | 0.124 | 3.15 | 0.011 | 0.28 |
| PIF-240-8 | 0.129 | 3.28 | 0.141 | 3.58 | 0.011 | 0.28 |
| PIF-240-7 | 0.144 | 3.66 | 0.158 | 4.01 | 0.013 | 0.33 |
| PIF-240-6 | 0.162 | 4.11 | 0.178 | 4.52 | 0.013 | 0.33 |
| PIF-240-5 | 0.182 | 4.62 | 0.198 | 5.03 | 0.013 | 0.33 |
| PIF-240-4 | 0.204 | 5.18 | 0.224 | 5.69 | 0.016 | 0.41 |
| PIF-240-3 | 0.229 | 5.82 | 0.249 | 6.32 | 0.016 | 0.41 |
| PIF-240-2 | 0.258 | 6.55 | 0.278 | 7.06 | 0.016 | 0.41 |
| PIF-240-1 | 0.289 | 7.34 | 0.311 | 7.90 | 0.016 | 0.41 |
| PIF-240-0 | 0.325 | 8.26 | 0.347 | 8.81 | 0.016 | 0.41 |
| PIF-240-3/8 | 0.375 | 9.53 | 0.399 | 10.13 | 0.016 | 0.41 |
| PIF-240-7/16 | 0.438 | 11.13 | 0.462 | 11.73 | 0.018 | 0.46 |
| PIF-240-1/2A | 0.500 | 12.70 | 0.524 | 13.31 | 0.018 | 0.46 |
| PIF-240-5/8 | 0.625 | 15.88 | 0.655 | 16.64 | 0.018 | 0.46 |
| PIF-240-3/4 | 0.750 | 19.05 | 0.783 | 19.89 | 0.018 | 0.46 |
| PIF-240-7/8 | 0.875 | 22.23 | 0.991 | 25.17 | 0.018 | 0.46 |
| PIF-240-1IN | 1.000 | 25.40 | 1.026 | 26.06 | 0.018 | 0.46 |



FIT® Wire Management

Copper EMI Shielding Tape CST Series



UL 510 ASTM D 1000, Method 303 MIL-STD-202C

- EMI shielding
- Highly conductive pressure-sensitive adhesive seal

Operating Temperature

- -40°C to +205°C

Color

- Copper

Material

- Copper foil on pressure-sensitive adhesive

Physical Properties

- Tensile strength: 21 lb/inch (0.145 N/mm²)
- Adhesion: 40 oz/inch
- Foil thickness: 0.0014 inch (0.04 mm)
- Adhesive thickness: 0.00015 inch (0.004 mm)
- Flammability: flame resistant per UL 510

Electrical Properties

- Electrical resistance through tape: <0.003 ohms/inch² (<0.0005 ohms/cm²)
- Shielding effectiveness: 50 dB at 153 MHz

Availability

36-yard (33 m) rolls

| Part No. | Width | |
|----------|-------|-------|
| | Inch | mm |
| CST-5 | 0.50 | 12.70 |
| CST-10 | 1.00 | 25.40 |
| CST-15 | 1.50 | 38.10 |
| CST-20 | 2.00 | 50.80 |

FIT® Wire Management

Self-Fusing Silicone Tape



A-A-59163

- Cures within 48 hours at room temperature or 4 hours at 177°C
- No adhesive required
- Low-cost seal for electrical insulation, cables harnesses, splices, hot air ducting, and electrical wire wrap
- Conforms to irregular shapes to protect, secure, insulate, mask
- Resists outside weathering

Operating Temperature

- -90°C to +260°C (continuous)

Colors

- Red, black, blue, yellow, white, green

Material

- Silicone

Physical Properties

- Tensile strength: 700 psi (4.8 N/mm²) min.
- Elongation: 300% min.
- Water absorption: 3% max.
- Bond strength: 20 lbf (25 kgf)
- Shelf life: 1 year at 37.3°C for unopened container

Electrical Properties

- Dielectric strength: 400 V/mil (157 kV/cm)
- Volume resistivity: 1 x 10¹³ ohm-cm

Availability

- 14-ft put-ups (all colors)
- 35-ft put-ups (black, red)

| Part No. | Width | | Thickness | |
|----------|-------|-------|-----------|------|
| | Inch | mm | Inch | mm |
| TY2001 | 1.000 | 25.40 | 0.020 | 0.51 |

FIT® Wire Management

Expandable Braided Sleeving

GRP-110, GRP-120



UL UZKX2
UL VW-1 (GRP-120)
MIL-I-631

- Light weight, flexible routing
- High abrasion and cut-through resistance

Operating Temperature

- -75°C to +125°C
- 250°C melt temperature

Color

- GRP-110: Black or natural
- GRP-120: Black with white tracer thread or white with black tracer thread

Material

- Braided polyester
- Should be cut with hot knife

Physical Properties

- Tensile strength:
 GRP-110: 85,000 psi (586 N/mm²)
 GRP-120: 55,000 psi (379 N/mm²)

Chemical Properties

- Corrosive effect: noncorrosive
- Fungus resistance: no growth
- GRP-120: flame retardant
- Halogen free
- Lead free

Availability

See tables

Spools may contain multiple lengths

General-Purpose Sleeving

| Part No. | Inside Diameter, Min. | | Expanded Inside Diameter, Max. | | Wall Thickness | | Construction | | | Standard Put-Ups | |
|---------------|-----------------------|-------|--------------------------------|-------|----------------|------|--------------|-------|-------|------------------|-----------|
| | Inch | mm | Inch | mm | Inch | mm | Carriers | Yarns | Total | Ft | m |
| GRP-110-1/8 | 0.093 | 2.36 | 0.250 | 6.35 | 0.025 | 0.64 | 32 | 1 | 32 | 100, 500 | 30.5, 152 |
| GRP-110-1/4 | 0.125 | 3.18 | 0.375 | 9.53 | 0.025 | 0.64 | 24 | 3 | 72 | 100, 500 | 30.5, 152 |
| GRP-110-1/2 | 0.250 | 6.35 | 0.750 | 19.05 | 0.025 | 0.64 | 48 | 3 | 144 | 100, 500 | 30.5, 152 |
| GRP-110-3/4 | 0.500 | 12.70 | 1.250 | 31.75 | 0.025 | 0.64 | 72 | 3 | 216 | 100, 500 | 30.5, 152 |
| GRP-110-1-1/4 | 0.750 | 19.05 | 1.750 | 44.45 | 0.025 | 0.64 | 96 | 3 | 288 | 50, 250 | 15.2, 76 |
| GRP-110-1-3/4 | 1.250 | 31.75 | 2.750 | 69.85 | 0.025 | 0.64 | 120 | 4 | 480 | 50, 250 | 15.2, 76 |
| GRP-110-2IN | 1.500 | 38.10 | 3.500 | 88.90 | 0.025 | 0.64 | 120 | 4 | 480 | 50, 250 | 15.2, 76 |

Flame-Retardant Sleeving

| Part No. | Inside Diameter, Min. | | Expanded Inside Diameter, Max. | | Wall Thickness | | Construction | | | Standard Put-Ups | |
|---------------|-----------------------|-------|--------------------------------|-------|----------------|------|--------------|-------|-------|------------------|-----------|
| | Inch | mm | Inch | mm | Inch | mm | Carriers | Yarns | Total | Ft | m |
| GRP-120-1/8 | 0.093 | 2.36 | 0.250 | 6.35 | 0.025 | 0.64 | 32 | 1 | 32 | 100, 500 | 30.5, 152 |
| GRP-120-1/4 | 0.125 | 3.18 | 0.375 | 9.53 | 0.025 | 0.64 | 24 | 3 | 72 | 100, 500 | 30.5, 152 |
| GRP-120-1/2 | 0.250 | 6.35 | 0.750 | 19.05 | 0.025 | 0.64 | 48 | 3 | 144 | 100, 500 | 30.5, 152 |
| GRP-120-3/4 | 0.500 | 12.70 | 1.250 | 31.75 | 0.025 | 0.64 | 72 | 3 | 216 | 100, 500 | 30.5, 152 |
| GRP-120-1-1/4 | 0.750 | 19.05 | 1.750 | 44.45 | 0.025 | 0.64 | 96 | 3 | 288 | 50, 250 | 15.2, 76 |
| GRP-120-1-3/4 | 1.250 | 31.75 | 2.750 | 69.85 | 0.025 | 0.64 | 120 | 4 | 480 | 50, 250 | 15.2, 76 |
| GRP-120-2IN | 1.500 | 38.10 | 3.500 | 88.90 | 0.025 | 0.64 | 120 | 4 | 480 | 50, 250 | 15.2, 76 |



FIT® Wire Management

Non-Fraying, Expandable Braided Sleeving GRP-110NF, GRP-120NF



- Light weight, flexible routing
- Frayless: cuts without a hot knife
- Compatible with automatic cutting machines

Operating Temperature

- -75°C to +125°C

Color

- GRP-110NF, XS-100: Black or natural
- GRP-120NF: Black with white tracer thread
- XS-100FR: Black or white

Material

- Braided PET

Physical Properties

- Tensile strength:
GRP-110NF: 85,000 psi (586 N/mm²)
GRP-120NF: 55,000 psi (379 N/mm²)
XS-100/100FR: 100,000 psi (689 N/mm²)

Chemical Properties

- Corrosive effect: none
- Fungus resistance: no growth

Availability

See tables

Spools may contain multiple lengths

UL UZKX2
UL VW-1 (GRP-120NF,
XS-100FR)
CSA 5836 01
MIL-I-631

General-Purpose Sleeving

| Part No. | Inside Diameter, Min. | | Expanded Inside Diameter, Max. | | Wall Thickness | | Construction | | | Standard Put-Ups | |
|--------------|-----------------------|-------|--------------------------------|-------|----------------|------|--------------|-------|-------|------------------|-----------|
| | Inch | mm | Inch | mm | Inch | mm | Carriers | Yarns | Total | Ft | m |
| GRP-110NF18 | 0.125 | 3.18 | 0.250 | 6.35 | 0.024 | 0.61 | 32 | 3 | 96 | 100, 500 | 30.5, 152 |
| GRP-110NF14 | 0.156 | 3.96 | 0.438 | 11.13 | 0.024 | 0.61 | 40 | 3 | 120 | 100, 500 | 30.5, 152 |
| GRP-110NF12 | 0.250 | 6.35 | 0.750 | 19.05 | 0.024 | 0.61 | 64 | 3 | 192 | 100, 500 | 30.5, 152 |
| GRP-110NF34 | 0.625 | 15.88 | 1.000 | 25.40 | 0.024 | 0.61 | 80 | 3 | 240 | 100, 500 | 30.5, 152 |
| GRP-110NF114 | 1.000 | 25.40 | 1.500 | 38.10 | 0.024 | 0.61 | 120 | 3 | 360 | 50, 250 | 15.2, 76 |
| GRP-110NF112 | 1.250 | 31.75 | 2.000 | 50.80 | 0.024 | 0.61 | 120 | 4 | 480 | 50, 250 | 15.2, 76 |
| XS-100-2-1/2 | 2.000 | 50.80 | 3.500 | 88.90 | 0.025 | 0.64 | 144 | 5 | 720 | 100 | 30.5 |

Flame-Retardant Sleeving

| Part No. | Inside Diameter, Min. | | Expanded Inside Diameter, Max. | | Wall Thickness | | Construction | | | Standard Put-Ups | |
|----------------|-----------------------|-------|--------------------------------|-------|----------------|------|--------------|-------|-------|------------------|-----------|
| | Inch | mm | Inch | mm | Inch | mm | Carriers | Yarns | Total | Ft | m |
| GRP-120NF18 | 0.125 | 3.18 | 0.250 | 6.35 | 0.024 | 0.61 | 32 | 3 | 96 | 100, 500 | 30.5, 152 |
| GRP-120NF14 | 0.156 | 3.96 | 0.438 | 11.13 | 0.024 | 0.61 | 40 | 3 | 120 | 100, 500 | 30.5, 152 |
| GRP-120NF12 | 0.250 | 6.35 | 0.750 | 19.05 | 0.024 | 0.61 | 64 | 3 | 192 | 100, 500 | 30.5, 152 |
| GRP-120NF34 | 0.625 | 15.88 | 1.000 | 25.40 | 0.024 | 0.61 | 80 | 3 | 240 | 100, 500 | 30.5, 152 |
| GRP-120NF114 | 1.000 | 25.40 | 1.500 | 38.10 | 0.024 | 0.61 | 120 | 3 | 360 | 50, 250 | 15.2, 76 |
| GRP-120NF112 | 1.250 | 31.75 | 2.000 | 50.80 | 0.024 | 0.61 | 120 | 4 | 480 | 50, 250 | 15.2, 76 |
| XS-100FR-2-1/2 | 2.000 | 50.80 | 3.500 | 88.90 | 0.025 | 0.64 | 144 | 5 | 720 | 100 | 30.5 |



FIT® Wire Management

Flexible, Semirigid Wrappable Sleeving GRP-130 and GRP-130NF



The choice for a wide variety of bundling applications without the need for additional fasteners

- UL UZKX2**
- UL 94V-0 (GRP-130)**
- UL VW1 (GRP-130NF)**
- CSA 5836 01 FT2**
- FAR 25 (GRP-130NR)**

- Bends tightly without distorting or opening
- 25% edge overlap to accommodate connectors and splices
- Fast, easy wrap-around installation
- More flexible than spiral wrap or split convoluted tubing

Operating Temperature

- -70°C to +125°C
- GRP-130: 230°C melt temperature
- GRP-130NF: 250°C melt temperature

Color

- GRP-130: Black or orange
- GRP-130NF: Black with white tracer

Materials

- 10-mil PET braid
- Cuts with hot knife

Physical Properties

- Tensile strength:
GRP-130: 6 psi (0.04 N/mm²)
GRP-130NF: 4 psi (0.02 N/mm²)
- Specific gravity: 1.38 max

Chemical Properties

- Corrosive effects: noncorrosive
- Fungus resistance: no growth
- Water absorption: 0.10% max
- UV resistant
- Halogen free
- Lead free

Availability

See table
Reels may contain multiple lengths

The GRP-130 installation tool makes installing long length of GRP-130 sleeving fast and easy. Simply insert your wire bundle into the tool's shank and slide the tool along the split in the sleeving. The tool deposits the wires and allows the split to close correctly.



| Part No. | | Size | | Wall Thickness (Min) | | Ends per Carrier Alternating | Standard Put-Ups | | Installation Tool Part No. |
|---------------|-----------------|-------|-------|----------------------|-------|------------------------------|------------------|------------|----------------------------|
| Black | Black w/ Tracer | Inch | mm | Inch | mm | | Ft | m | |
| GRP-130-1/8 | GRP-130NF-18 | 0.125 | 3.18 | 0.024 | 3.18 | 1/3 | 50, 200 | 15.2, 71 | GRP-130T-1/4 |
| GRP-130-1/4 | GRP-130NF-14 | 0.250 | 6.35 | 0.025 | 6.35 | 1/3 | 50, 200 | 15.2, 71 | GRP-130T-1/4 |
| GRP-130-3/8 | GRP-130NF-38 | 0.375 | 9.53 | 0.025 | 9.53 | 1/3 | 50, 100 | 15.2, 30.5 | GRP-130T-1/2 |
| GRP-130-1/2 | GRP-130NF-12 | 0.500 | 12.70 | 0.025 | 12.70 | 1/3 | 50, 100 | 15.2, 30.5 | GRP-130T-1/2 |
| GRP-130-3/4 | GRP-130NF-34 | 0.750 | 19.05 | 0.025 | 19.05 | 1/3 | 50, 100 | 15.2, 30.5 | GRP-130T-3/4 |
| GRP-130-1IN | GRP-130NF-11N | 1.000 | 25.40 | 0.038 | 25.40 | 1/3 | 50, 100 | 15.2, 30.5 | GRP-130T-1IN |
| GRP-130-1-1/4 | GRP-130NF-1-14 | 1.250 | 31.75 | 0.038 | 31.75 | 1/3 | 25 | 7.6 | GRP-130T-1-1/4 |
| GRP-130-1-1/2 | GRP-130NF-1-12 | 1.500 | 38.10 | 0.038 | 38.10 | 1/3 | 25 | 7.6 | GRP-130T-1-1/4 |
| GRP-130-2IN | GRP-130NF-2IN | 2.000 | 50.80 | 0.038 | 50.80 | 2/3 | 25 | 7.6 | GRP-130T-1-1/4* |

*Designed for up to 1.22" cable diameter



FIT® Wire Management

Advanced Protection Expandable Sleeving GRP-160



Color

- Black

Materials

- 20-mil nylon polyamide monofilament

Physical Properties

- Tensile strength: 19 psi (0.13 N/mm²)
- Specific gravity: 1.14 max

Chemical Properties

- Corrosive effects: noncorrosive
- Fungus resistance: no growth
- Water absorption: 2.50% max
- UV resistant
- Halogen free
- Lead free

Availability

See table
Reels may contain multiple lengths

An economical, easy-to-use choice for advanced abrasion and cut-through protection

- Extreme abrasion resistance without losing flexibility or durability
- Cuts cleanly with hot knife
- Resists fuels, solvents, salt water, chemicals, and UV
- Expandable to 150%

Operating Temperature

- -45°C to +150°C
- 256°C melt temperature

| Part No. | Nominal Size | | Expansion Range | | Construction | | | Standard Put-Ups | |
|---------------|--------------|-------|-----------------|---------------|--------------|-------|-------|------------------|-----------|
| | Inch | mm | Inch | mm | Carriers | Yarns | Total | Ft | m |
| GRP-160-1/4 | 1/4 | 6.35 | 0.250 - 0.500 | 6.35 - 12.70 | 20 | 3 | 60 | 50, 250 | 15.2, 76 |
| GRP-160-1/2 | 1/2 | 12.70 | 0.500 - 1.000 | 12.70 - 25.40 | 36 | 3 | 108 | 50, 250 | 15.2, 76 |
| GRP-160-3/4 | 3/4 | 19.05 | 0.750 - 1.250 | 19.05 - 31.75 | 40 | 3 | 120 | 50, 250 | 15.2, 76 |
| GRP-160-1IN | 1 | 25.40 | 1.000 - 1.500 | 25.40 - 38.10 | 48 | 3 | 144 | 50, 250 | 15.2, 76 |
| GRP-160-1-1/4 | 1-1/4 | 31.75 | 1.250 - 2.000 | 31.75 - 50.80 | 56 | 3 | 168 | 50, 250 | 15.2, 76 |
| GRP-160-1-3/4 | 1-3/4 | 44.45 | 1.750 - 2.750 | 44.45 - 69.85 | 72 | 3 | 216 | 50, 250 | 15.2, 76 |
| GRP-160-2-1/4 | 2-1/4 | 57.15 | 2.250 - 3.000 | 57.15 - 76.20 | 96 | 3 | 288 | 25, 100 | 7.6, 30.5 |



FIT® Wire Management

Advanced Chemical Resistance Expandable Sleeving GRP-170



Color

- Black

Materials

- 8-mil-diameter polyphenylene sulfide (PPS) monofilaments
- Cuts with hot knife

Physical Properties

- Specific gravity: 1.37 max
- Flame resistant

Chemical Properties

- Corrosive effects: noncorrosive
- Fungus resistance: no growth
- Water absorption: 0.025% max
- Low outgassing
- UV resistant
- Halogen free
- Lead free

Availability

See table
Reels may contain multiple lengths

The extremely lightweight sleeving that is impervious to virtually all chemicals

UL 94V-0 FAR 25

- Resists acids, bases, solvents, and fuels
- Ultra-lightweight
- High abrasion resistance
- Expandable to 150%
- Flame resistant
- Cuts cleanly with hot knife

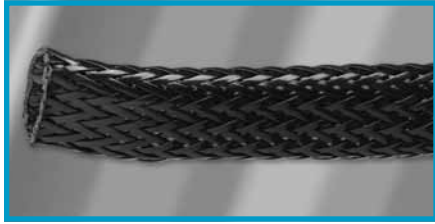
Operating Temperature

- -70°C to +200°C
- 285°C melt temperature

| Part No. | Nominal Size | | Expansion Range | | Construction | | | Standard Put-Ups | |
|---------------|--------------|-------|-----------------|---------------|--------------|-------|-------|------------------|-----------|
| | Inch | mm | Inch | mm | Carriers | Yarns | Total | Ft | m |
| GRP-170-1/8 | 1/8 | 3.18 | 0.094 - 0.250 | 2.38 - 6.35 | 32 | 2 | 64 | 100, 500 | 30.5, 152 |
| GRP-170-1/4 | 1/4 | 6.35 | 0.125 - 0.375 | 3.18 - 9.53 | 48 | 2 | 96 | 100, 500 | 30.5, 152 |
| GRP-170-1/2 | 1/2 | 12.70 | 0.250 - 0.750 | 6.35 - 19.05 | 56 | 3 | 168 | 100, 500 | 30.5, 152 |
| GRP-170-3/4 | 3/4 | 19.05 | 0.500 - 1.250 | 12.70 - 31.75 | 72 | 3 | 216 | 50, 250 | 15.2, 76 |
| GRP-170-1-1/4 | 1-1/4 | 31.75 | 0.750 - 1.750 | 19.05 - 44.45 | 96 | 4 | 384 | 50, 250 | 15.2, 76 |
| GRP-170-1-3/4 | 1-3/4 | 44.45 | 1.250 - 2.500 | 31.75 - 63.50 | 120 | 4 | 480 | 50, 250 | 15.2, 76 |

FIT® Wire Management

Maximum Performance Expandable Sleeving GRP-180



Color

- Black

Materials

- Flat 20-mil nylon filaments
- Cuts with hot knife

Physical Properties

- Tensile strength: 19 psi (0.13 N/mm²)
- Specific gravity: 1.12 max

Chemical Properties

- Corrosive effects: noncorrosive
- Fungus resistance: no growth
- Water absorption: 2.50% max
- UV resistant
- Lead free

Availability

See table
Reels may contain multiple lengths

Superior abrasion resistance, a wide operating temperature range, easy installation for industrial, solar, and high-abrasion applications

- Superior abrasion resistance
- Easy to install
- Resists fuels, solvents, chemicals, salt water, and UV
- Smooth inner wall to prevent internal abrasion damage

Operating Temperature

- -60°C to +150°C
- 265°C melt temperature

| Part No. | Nominal Size | | Expansion Range | | Construction | | | Standard Put-Ups | |
|---------------|--------------|-------|-----------------|---------------|--------------|-------|-------|------------------|-----------|
| | Inch | mm | Inch | mm | Carriers | Yarns | Total | Ft | m |
| GRP-180-1/2 | 1/2 | 12.70 | 0.375 - 0.625 | 9.53 - 15.88 | 24 | 1 | 24 | 50, 250 | 15.2, 76 |
| GRP-180-3/4 | 3/4 | 19.05 | 0.625 - 1.000 | 15.88 - 25.40 | 36 | 1 | 36 | 50, 250 | 15.2, 76 |
| GRP-180-1IN | 1 | 25.40 | 0.875 - 1.250 | 22.22 - 31.75 | 44 | 1 | 44 | 50, 250 | 15.2, 76 |
| GRP-180-1-1/4 | 1-1/4 | 31.75 | 1.000 - 1.500 | 25.40 - 38.10 | 48 | 1 | 48 | 25, 100 | 7.6, 30.5 |
| GRP-180-1-3/4 | 1-3/4 | 44.45 | 1.500 - 2.000 | 38.10 - 50.80 | 80 | 1 | 80 | 25, 100 | 7.6, 30.5 |
| GRP-180-2IN | 2 | 50.80 | 1.750 - 2.750 | 44.45 - 69.85 | 96 | 1 | 96 | 25, 100 | 7.6, 30.5 |

FIT® Wire Management

Extreme Performance Sleeving

GRP-200



Color

- Natural

Materials

- 16-mil PTFE filaments
- Cuts with hot knife or hot wire

Physical Properties

- Specific gravity: 2.15 max

Chemical Properties

- Corrosive effects: noncorrosive
- Fungus resistance: no growth
- Water absorption: 0.01% max
- Vacuum outgassing: 95.0% max
- Lead free

Availability

See table
Spools may contain multiple lengths

The high-temperature choice for aerospace, military, and high-tech applications where thermal stability and low outgassing are critical

FAR 25

- Cut and abrasion resistant
- Flame resistant
- Resists virtually all chemicals and UV
- Thermally stable
- Low outgassing
- Suitable for plenum use

Operating Temperature

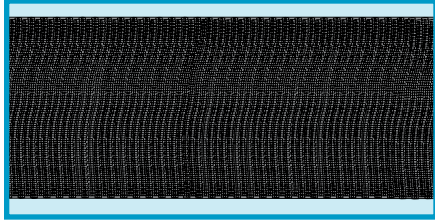
- -70°C to +280°C
- 310°C melt temperature

| Part No. | Nominal Size | | Expansion Range | | Construction | | | Standard Put-Ups | |
|---------------|--------------|-------|-----------------|---------------|--------------|-------|-------|------------------|-----------|
| | Inch | mm | Inch | mm | Carriers | Yarns | Total | Ft | m |
| GRP-200-1/8 | 1/8 | 3.18 | 0.094 - 0.250 | 2.38 - 6.35 | 24 | 1 | 25 | 50, 250 | 15.2, 76 |
| GRP-200-1/4 | 1/4 | 6.35 | 0.188 - 0.375 | 4.76 - 9.53 | 32 | 1 | 32 | 50, 250 | 15.2, 76 |
| GRP-200-3/8 | 3/8 | 9.53 | 0.250 - 0.750 | 6.35 - 19.06 | 40 | 3 | 120 | 50, 250 | 15.2, 76 |
| GRP-200-1/2 | 1/2 | 12.70 | 0.375 - 0.875 | 9.53 - 22.23 | 48 | 3 | 144 | 50, 250 | 15.2, 76 |
| GRP-200-3/4 | 3/4 | 19.05 | 0.625 - 1.250 | 15.88 - 31.75 | 64 | 3 | 192 | 50, 250 | 15.2, 76 |
| GRP-200-1-1/4 | 1-1/4 | 31.75 | 1.125 - 1.500 | 28.58 - 38.10 | 72 | 3 | 216 | 25, 100 | 7.6, 30.5 |
| GRP-200-1-3/4 | 1-3/4 | 44.45 | 1.375 - 1.750 | 34.93 - 44.45 | 80 | 4 | 240 | 25, 100 | 7.6, 30.5 |
| GRP-200-2IN | 2 | 50.80 | 1.688 - 2.125 | 42.88 - 53.98 | 96 | 3 | 288 | 25, 100 | 7.6, 30.5 |

FIT® Wire Management

Expandable Braided Sleeving

XS-100HD



UL 224
UL UZKX2
CSA 5836 01

- Extremely flexible
- Light weight
- Easy to install

Operating Temperature

- -70°C to +125°C
- 250°C melt temperature

Color

- Black

Material

- Heavy-duty braided PET

Physical Properties

- Tensile strength: 90,000 psi (620 N/mm²)
- Elongation: 25% min.
- Specific gravity: 1.31 max.

Chemical Properties

- Corrosive effect: none
- Fungus resistance: no growth
- Halogen free
- Lead free

Availability

See table

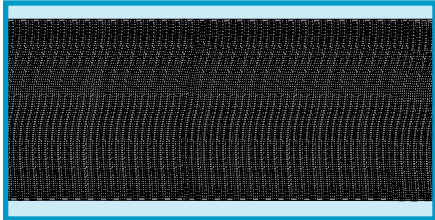
Spools may contain multiple lengths

| Part No. | Inside Diameter, Min. | | Expanded Inside Diameter, Max. | | Wall Thickness | | Construction | | | Standard Put-Ups | |
|----------|-----------------------|-------|--------------------------------|-------|----------------|------|--------------|-------|-------|------------------|------|
| | Inch | mm | Inch | mm | Inch | mm | Carriers | Yarns | Total | Ft | m |
| XHD3/8 | 0.188 | 4.78 | 0.750 | 19.05 | 0.042 | 1.07 | 24 | 3 | 72 | 500 | 152 |
| XHD5/8 | 0.313 | 7.95 | 1.000 | 25.40 | 0.042 | 1.07 | 32 | 3 | 96 | 500 | 152 |
| XHD1IN | 0.500 | 12.70 | 1.500 | 38.10 | 0.042 | 1.07 | 48 | 3 | 144 | 250 | 76 |
| XHD1-1/2 | 1.000 | 25.40 | 2.000 | 50.80 | 0.042 | 1.07 | 72 | 3 | 216 | 200 | 61 |
| XHD2IN | 1.500 | 38.10 | 3.000 | 76.20 | 0.042 | 1.07 | 93 | 3 | 288 | 100 | 30.5 |

FIT® Wire Management

Braided Sleeving

XS-200N



MIL-S-47053
CID A-A-59301

- Extremely durable
- Abrasion resistant
- Tight weave with excellent flexibility

Operating Temperature

- -45°C to +120°C
- 250°C melt temperature

Color

- Black

Material

- Braided nylon

Physical Properties

- Tensile strength: 80,000 psi (551 N/mm²)
- Specific gravity: 1.14

Chemical Properties

- Corrosive effect: none
- Fungus resistance: no growth
- Water absorption: 0.04%, max.
- Halogen free
- Lead free

Electrical Properties

- Dielectric strength: 4 V/mil (1.57 kV/cm)

Availability

See table

Spools may contain multiple lengths

| Part No. | Inside Diameter, Min. | | Wall Thickness | | Construction | | | Standard Put-Ups | |
|--------------------|-----------------------|-------|----------------|------|--------------|-------|-------|------------------|-----------|
| | Inch | mm | Inch | mm | Carriers | Yarns | Total | Ft | m |
| XS-200N-1/8 | 0.125 | 3.18 | 0.020 | 0.51 | 28 | 3 | 84 | 100, 1000 | 30.5, 305 |
| XS-200N-1/4 | 0.250 | 6.35 | 0.032 | 0.81 | 48 | 4 | 192 | 100, 500 | 30.5, 152 |
| XS-200N-3/8 | 0.375 | 9.53 | 0.032 | 0.81 | 52 | 5 | 260 | 100, 500 | 30.5, 152 |
| XS-200N-1/2 | 0.500 | 12.70 | 0.035 | 0.89 | 72 | 6 | 432 | 100 | 30.5 |
| XS-200N-3/4 | 0.750 | 19.05 | 0.035 | 0.89 | 72 | 9 | 648 | 100, 250 | 30.5, 76 |
| XS-200N-1IN | 1.000 | 25.40 | 0.045 | 1.14 | 72 | 16 | 1152 | 100 | 30.5 |

FIT® Wire Management

Abrasion-Resistant Nylon Sleevings

XS300



Color

- Black

Materials

- 45-mil-thick nylon
- Cuts with scissors

Physical Properties

- Specific gravity: 1.14

Chemical Properties

- Corrosive effects: noncorrosive
- Fungus resistance: no growth
- Water absorption: 2.70% max
- Halogen free
- Lead free

Availability

25 ft (7.6 m)
100 ft (30.4 m) for 0.71 through 1.59 sizes only

Professional-grade protection with smooth inner wall to prevent internal abrasion damage

- Excellent abrasion resistance
- Tightly woven, nonexpandable
- Cuts cleaning with scissors
- Deflects high-pressure hose ruptures
- Resists fuels, chemicals, UV, rot, and vermin
- ISO 6945 certified
- MSHA approved “Accepted flame-resistant solid products taken into mines”

Operating Temperature

- -45°C to +120°C
- 210°C melt temperature

| Part No. | Size | | Wall Thickness (Min) | |
|----------|------|-------|----------------------|------|
| | Inch | mm | Inch | Mm |
| XS300071 | 0.71 | 18.03 | 0.045 | 1.14 |
| XS300083 | 0.83 | 21.08 | 0.045 | 1.14 |
| XS300092 | 0.92 | 23.37 | 0.045 | 1.14 |
| XS300100 | 1.00 | 25.40 | 0.045 | 1.14 |
| XS300113 | 1.13 | 28.70 | 0.045 | 1.14 |
| XS300125 | 1.25 | 31.75 | 0.045 | 1.14 |
| XS300134 | 1.34 | 34.04 | 0.045 | 1.14 |
| XS300159 | 1.59 | 40.39 | 0.045 | 1.14 |
| XS300175 | 1.75 | 44.45 | 0.045 | 1.14 |
| XS300207 | 2.07 | 52.58 | 0.045 | 1.14 |
| XS300238 | 2.38 | 60.45 | 0.045 | 1.14 |
| XS300254 | 2.54 | 64.52 | 0.045 | 1.14 |
| XS300286 | 2.86 | 72.64 | 0.045 | 1.14 |
| XS300334 | 3.34 | 84.84 | 0.045 | 1.14 |
| XS300366 | 3.66 | 92.96 | 0.045 | 1.14 |

FIT® Wire Management

Expandable Braided Sleeving

ZIP-GRP



UL UZKYZ
UL 94V-0
CSA 5836 01

- Unlimited breakouts
- Abrasion and cut-through resistance
- Oil and solvent resistance

Operating Temperature

- -70°C to +125°C
- 230°C melt temperature

Color

- Black

Material

- Braided PET with hook and loop closure
- Cuts with hot knife

Physical Properties

- Tensile strength: 85,000 psi (586 N/mm²)
- Specific gravity: 1.38

Chemical Properties

- Corrosive effect: None
- Fungus resistance: no growth
- Water absorption: 0.15% max.
- Halogen free
- Lead free
- Chemically inert
- UV resistant

Availability

25 ft (7.6 m)
 50 ft (15.2 m)

Spools may contain multiple lengths

| Part No. | Inside Diameter, Min. | | Expanded Inside Diameter, Max. | | Wall Thickness | | Construction | | |
|----------------------|-----------------------|-------|--------------------------------|--------|----------------|------|--------------|-------|-------|
| | Inch | mm | Inch | mm | Inch | mm | Carriers | Yarns | Total |
| ZIP-GRP-7/8 | 0.500 | 12.70 | 2.375 | 60.33 | 0.025 | 0.64 | 88 | 4 | 220 |
| ZIP-GRP-1-1/2 | 1.500 | 38.10 | 3.500 | 88.90 | 0.025 | 0.64 | 105 | 4 | 420 |
| ZIP-GRP-2 | 2.000 | 50.80 | 4.500 | 114.30 | 0.025 | 0.64 | 137 | 4 | 548 |



FIT® Wire Management

Lacing Tape



A-A-52080 Type 1

- High tensile strength
- Good chemical resistance
- Excellent abrasion resistance
- Excellent knot retention

See table for specifications.

A-A-52080 (MIL-T-43435B Type I)

- Flat braid made from high-tenacity continuous nylon yarn

Operating temperature:

- -55° C to +121° C

Elongation:

- 40% max

Finish weight (impregnated % of material by weight)

- Finish A (natural)
- Finish B (wax): 15% - 32%
- Finish C (synthetic rubber/elastomer): 7% - 17%
- Finish E (synthetic resin/vinyl): 15% - 30%

Finishes

A. Natural, No finish

B. Wax: A microcrystalline wax with a melting point above 54°C compounded with a fungicide that does not contain either copper or mercuric materials. Excellent knot retention, yet the finish does not have too great a “waxy” feel to the user. Microcrystalline wax is soft, pliable, and easy to tie.

C. Synthetic Rubber or Elastomer:

A special continuous coating of fungistatic synthetic rubber containing no corrosive compounding ingredients. Knots tied with this finish will not slip. This finish will not flake or dust.

D: Glass/TFE:

The glass/TFE combination has excellent tensile strength and abrasion resistance. Also resists fungus, acids and flames.

E. Synthetic Resin or Vinyl:

A thermoplastic synthetic resin with a melting point above 177°C for use where a “wax free” type is specified. It is a non-dusting or flaking, dry finish with good knot tying qualities.

| Part No. | Finish | Color | Width, Nom | | Thickness, Nom. | | Break Strength, Min. | | Availability* | |
|----------------|--------|--------------|------------|------|-----------------|------|----------------------|------|---------------|-----|
| | | | Inch | mm | Inch | mm | lb | kg | Yd | m |
| 801530W | A | Natural | 0.050 | 1.27 | 0.010 | 0.25 | 15 | 6.8 | 500 | 457 |
| 801536B | B | Black | 0.050 | 1.27 | 0.010 | 0.25 | 15 | 6.8 | 500 | 457 |
| 801536W | B | Natural | 0.050 | 1.27 | 0.010 | 0.25 | 15 | 6.8 | 500 | 457 |
| 802534B | B | Black | 0.060 | 1.52 | 0.012 | 0.30 | 25 | 11.3 | 500 | 457 |
| 802534W | B | Natural | 0.060 | 1.52 | 0.012 | 0.30 | 25 | 11.3 | 500 | 457 |
| LC-134 | B | Black, White | 0.060 | 1.52 | 0.012 | 0.30 | 25 | 11.3 | 500 | 457 |
| 805032B | E | Black | 0.085 | 2.16 | 0.014 | 0.36 | 50 | 22.7 | 500 | 457 |
| 805032W | E | Natural | 0.085 | 2.16 | 0.014 | 0.36 | 50 | 22.7 | 500 | 457 |
| 805036B | B | Black | 0.085 | 2.16 | 0.014 | 0.36 | 50 | 22.7 | 500 | 457 |
| 805036W | B | Natural | 0.085 | 2.16 | 0.014 | 0.36 | 50 | 22.7 | 500 | 457 |
| 805040B | C | Black | 0.085 | 2.16 | 0.014 | 0.36 | 50 | 22.7 | 500 | 457 |
| 805040W | C | Natural | 0.085 | 2.16 | 0.014 | 0.36 | 50 | 22.7 | 500 | 457 |
| LC-143 | E | Black, White | 0.085 | 2.16 | 0.014 | 0.36 | 50 | 22.7 | 500 | 457 |
| 808036B | B | Black | 0.110 | 2.79 | 0.015 | 0.38 | 80 | 36.3 | 250 | 228 |
| 808036W | B | White | 0.110 | 2.79 | 0.015 | 0.38 | 80 | 36.3 | 250 | 228 |

*Bobbins/tubes may contain multiple lengths.



FIT® Wire Management

Lacing Tape



A-A-52081 (formerly MIL-T-43435B Type II)

- Flat braid made from high-tenacity continuous polyester yarn

Operating temperature:

- -73°C to +177°C

Elongation:

- 40% max

Finish weight (impregnated % of material by weight)

- Finish A (natural)
- Finish B (wax): 15% - 32%
- Finish C (synthetic rubber/elastomer): 7% - 17%
- Finish E (synthetic resin/vinyl): 15% - 30%

A-A-52083 (formerly MIL-T-43435B Type IV)

- Flat braid made from continuous filament glass yarn coated with PTFE before braiding

Operating temperature:

- Glass maintain strength and stability to 427°C

Elongation:

- 5% max

Finish weight (impregnated % of material by weight)

- Finish D (glass/TFE): 10% - 20%

| Part No. | Finish | Color | Width, Nom. | | Thickness, Nom. | | Break Strength, Min. | | Availability* | |
|----------|--------|--------------|-------------|------|-----------------|------|----------------------|------|---------------|-----|
| | | | Inch | mm | Inch | mm | lb | kg | Yd | m |
| 801566B | C | Black | 0.050 | 1.27 | 0.010 | 0.25 | 15 | 6.8 | 500 | 457 |
| 802566B | C | Black | 0.060 | 1.52 | 0.012 | 0.30 | 25 | 11.3 | 500 | 457 |
| C164 | B | Black, White | 0.062 | 1.57 | 0.010 | 0.25 | 25 | 11.3 | 500 | 457 |
| 805058B | E | Black | 0.085 | 2.16 | 0.014 | 0.36 | 50 | 22.7 | 500 | 457 |
| 805058W | E | Natural | 0.085 | 2.16 | 0.014 | 0.36 | 50 | 22.7 | 500 | 457 |
| 805060B | A | Black | 0.085 | 2.16 | 0.014 | 0.36 | 50 | 22.7 | 500 | 457 |
| 805062B | B | Black | 0.085 | 2.16 | 0.014 | 0.36 | 50 | 22.7 | 500 | 457 |
| 805062W | B | Natural | 0.085 | 2.16 | 0.014 | 0.36 | 50 | 22.7 | 500 | 457 |
| 805066W | C | Natural | 0.085 | 2.16 | 0.014 | 0.36 | 50 | 22.7 | 500 | 457 |
| C162 | B | Black, White | 0.085 | 2.16 | 0.014 | 0.36 | 50 | 22.7 | 500 | 457 |
| 808060W | A | Natural | 0.110 | 2.79 | 0.015 | 0.38 | 80 | 36.3 | 500 | 457 |
| 808058B | E | Black | 0.110 | 2.79 | 0.015 | 0.38 | 80 | 36.3 | 250 | 228 |
| C160 | B | Black, White | 0.200 | 5.08 | 0.016 | 0.41 | 135 | 61.2 | 250 | 228 |

*Bobbins/tubes may contain multiple lengths.

| Part No. | Finish | Color | Width, Nom. | | Thickness, Nom. | | Break Strength, Min. | | Availability* | |
|----------|--------|---------|-------------|------|-----------------|------|----------------------|------|---------------|-----|
| | | | Inch | mm | Inch | mm | lb | kg | Yd | m |
| 807510W | D | Natural | 0.085 | 2.16 | 0.016 | 0.41 | 75 | 34.0 | 500 | 457 |
| 810010W | D | Natural | 0.110 | 2.79 | 0.016 | 0.41 | 100 | 45.3 | 250 | 228 |

*Bobbins/tubes may contain multiple lengths.



FIT® Wire Management

Lacing Tape



A-A-52084 (formerly MIL-T-43435B Type V)

- Flat braid made from continuous filament aramid yarn

Operating temperature:

- -55°C to +260°C

Elongation:

- 40% max

Finish weight (impregnated % of material by weight)

- Finish C (synthetic rubber/elastomer): 7% - 17%

MIL-DTL-713 Type P

- Twisted nylon cord made from high-tenacity continuous filament yarn

Operating temperature:

- -55° C to +121°C

Elongation:

- 20% min.

Finish weight (impregnated % of material by weight)

- Finish B (wax): 20% - 32%

Telecommunications-Grade Polyester Yarn

- Round, twisted polyester cord made from high-tenacity industrial polyester fiber

Melt temperature (approx.):

- 121°C

Elongation:

- 17% - 27%

Finish weight (impregnated % of material by weight)

- 9 ply: 7% - 17%
- 12 ply: 35%

| Part No. | Finish | Color | Width, Nom. | | Thickness, Nom. | | Break Strength, Min. | | Availability* | |
|---------------|--------|---------|-------------|------|-----------------|------|----------------------|------|---------------|-----|
| | | | Inch | mm | Inch | mm | lb | kg | Yd | m |
| 803554 | C | Natural | 0.075 | 1.91 | 0.012 | 0.30 | 35 | 15.9 | 500 | 457 |

*Bobbins/tubes may contain multiple lengths.

| Part No. | Finish | Color | Diameter, Nom. | | Break Strength, Min. | | Availability* | |
|----------------|--------|---------|----------------|------|----------------------|------|---------------|------|
| | | | Inch | mm | lb | kg | lb | kg |
| 803215B | B | Black | 0.023 | 0.58 | 32 | 14.5 | 1 | 0.45 |
| 803215W | B | Natural | 0.023 | 0.58 | 32 | 14.5 | 1 | 0.45 |
| 804812W | A | Natural | 0.025 | 0.64 | 48 | 21.8 | 1 | 0.45 |
| 804814B | B | Black | 0.025 | 0.64 | 48 | 21.8 | 1 | 0.45 |
| 804814W | B | Natural | 0.025 | 0.64 | 48 | 21.8 | 1 | 0.45 |
| 807013B | B | Black | 0.040 | 1.02 | 70 | 31.7 | 1 | 0.45 |
| 807013W | B | Natural | 0.040 | 1.02 | 70 | 31.7 | 1 | 0.45 |

*Weight per spool; bobbins/tubes may contain multiple lengths.

| Part No. | Finish | Color | Diameter, Nom. | | Break Strength, Min. | | Plies | Availability* | |
|----------------|--------|---------|----------------|------|----------------------|------|-------|---------------|------|
| | | | Inch | mm | lb | kg | | lb | kg |
| 812030W | Wax | Natural | 0.030 | 0.76 | 32 | 14.5 | 9 | 0.5 | 0.22 |
| 815040W | Wax | Natural | 0.030 | 0.76 | 32 | 14.5 | 12 | 0.5 | 0.22 |

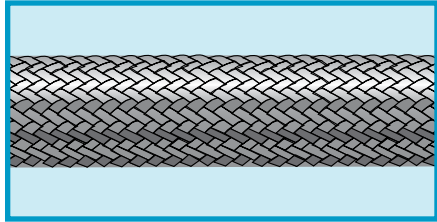
*Weight per tube; bobbins/tubes may contain multiple lengths.



FIT® Wire Management

Tinned Copper Braid

Flat, Oval



AA-59569A (as indicated)

Color

- Silver

Material

- Tinned copper braid

Availability

See table

Spools may contain multiple lengths

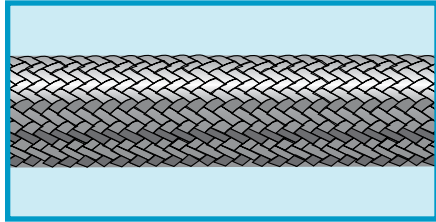
| Part No. | Flat Width, Nom. | | Thickness, Nom. | | Braid Construction | | | AWG Equivalent, Approx. | CMA, Nom. | Current-Carrying Capacity | Standard Put-Ups | |
|----------|------------------|-------|-----------------|------|----------------------|----------|----------------------|-------------------------|-----------|---------------------------|------------------|----------------|
| | Inch | mm | Inch | mm | AWG of Individ. Ends | Carriers | No. of Individ. Ends | | | | Amps | Ft |
| 1221* | 0.025 | 0.64 | 0.015 | 0.38 | 36 | 8 | 8 | 27 | 200 | 4 | 100, 500, 1000 | 30.5, 152, 305 |
| 1222* | 0.032 | 0.81 | 0.020 | 0.50 | 36 | 16 | 16 | 24 | 400 | 6 | 100, 500, 1000 | 30.5, 152, 305 |
| 1223 | 0.047 | 1.19 | 0.020 | 0.50 | 36 | 24 | 24 | 22 | 600 | 7 | 100, 500, 1000 | 30.5, 152, 305 |
| 1224* | 0.094 | 2.39 | 0.020 | 0.50 | 36 | 16 | 48 | 19 | 1200 | 11 | 100, 500, 1000 | 30.5, 152, 305 |
| 1229 | 0.125 | 3.18 | 0.020 | 0.50 | 36 | 24 | 72 | 18 | 1800 | 16 | 100, 500, 1000 | 30.5, 152, 305 |
| 1230 | 0.187 | 4.75 | 0.020 | 0.50 | 36 | 24 | 120 | 15 | 3000 | 25 | 100, 500, 1000 | 30.5, 152, 305 |
| 1231 | 0.250 | 6.35 | 0.030 | 0.76 | 36 | 24 | 168 | 14 | 4200 | 32 | 100, 500, 1000 | 30.5, 152, 305 |
| 1232* | 0.385 | 9.78 | 0.030 | 0.76 | 36 | 48 | 288 | 12 | 7200 | 46 | 100, 500, 1000 | 30.5, 152, 305 |
| 1233/2* | 0.500 | 12.70 | 0.030 | 0.76 | 36 | 48 | 384 | 10 | 9600 | 53 | 100, 500, 1000 | 30.5, 152, 305 |
| 1233 | 0.625 | 15.88 | 0.030 | 0.76 | 36 | 48 | 384 | 10 | 9600 | 53 | 100, 500, 1000 | 30.5, 152, 305 |
| 1234 | 0.750 | 19.05 | 0.040 | 1.02 | 36 | 48 | 864 | 7 | 20,800 | 85 | 100, 500, 1000 | 30.5, 152, 305 |
| 1235* | 1.000 | 25.40 | 0.045 | 1.14 | 36 | 48 | 864 | 7 | 20,800 | 85 | 100, 500, 1000 | 30.5, 152, 305 |
| 1239 | 1.375 | 34.93 | 0.050 | 1.27 | 30 | 48 | 336 | 5 | 33,700 | 100 | 100, 500, 1000 | 30.5, 152, 305 |
| 1240 | 1.500 | 38.10 | 0.060 | 1.52 | 30 | 48 | 528 | 3 | 53,064 | 150 | 100 | 30.5 |
| 1241* | 1.750 | 44.45 | 0.080 | 2.03 | 30 | 48 | 1248 | 2/0 | 125,424 | 280 | 100 | 30.5 |
| 1242* | 2.000 | 50.80 | 0.120 | 3.05 | 30 | 48 | 1436 | 3/0 | 154,368 | 310 | 100 | 30.5 |
| 1242/4* | 3.000 | 76.20 | 0.200 | 5.08 | 30 | 48 | 2256 | 4/0 | 225,000 | 390 | 100 | 30.5 |

*Not A-A-59569A.



FIT® Wire Wire Management

Tinned Copper Braid Flat, Oval



A-A-59551 (as indicated)

Color

- Silver

Material

- Tinned copper braid

Availability

See table

Spools may contain multiple lengths

| Part No. | Inside Diameter, Nom. | | Braid Construction | | | AWG Equivalent, Approx. | CMA, Nom. | Current-Carrying Capacity | Standard Put-Ups | |
|--------------|-----------------------|-------|----------------------|----------|----------------------|-------------------------|-----------|---------------------------|------------------|----------------|
| | Inch | mm | AWG of Individ. Ends | Carriers | No. of Individ. Ends | | | | Amps | Ft |
| 2132 | 1/16 | 1.59 | 34 | 16 | 32 | 19 | 1192 | 11 | 100, 500, 1000 | 30.5, 152, 305 |
| 2138 | 11/64 | 4.37 | 34 | 24 | 120 | 14 | 4770 | 32 | 100, 500, 1000 | 30.5, 152, 305 |
| 2140* | 3/16 | 4.76 | 34 | 24 | 144 | 13 | 5724 | 38 | 100, 500 | 30.5, 152 |
| 2142* | 1/4 | 6.35 | 34 | 24 | 168 | 12 | 6678 | 41 | 100, 500 | 30.5, 152 |
| 2144* | 3/8 | 9.53 | 34 | 24 | 192 | 11 | 7632 | 46 | 100, 500, | 30.5, 152 |
| 2146 | 1/2 | 12.70 | 34 | 48 | 336 | 9 | 13,356 | 62 | 100 | 30.5 |
| 2148* | 5/8 | 15.88 | 34 | 48 | 384 | 8 | 14,264 | 64 | 100 | 30.5 |
| 2150* | 11/16 | 17.46 | 34 | 48 | 480 | 7 | 19,080 | 81 | 100 | 30.5 |
| 2152 | 25/32 | 19.84 | 34 | 48 | 528 | 7 | 20,988 | 85 | 100 | 30.5 |

*Not A-A-59551.

Bare Copper Braid Flat

Material

- Bare copper braid

Availability

See table

Spools may contain multiple lengths

| Part No. | Dimensions, Nom. | | Braid Construction | | | CMA, Nom. | Current-Carrying Capacity | Standard Put-Ups | |
|--------------|------------------|-------------|----------------------|----------|----------------------|-----------|---------------------------|------------------|----------------|
| | Inch | mm | AWG of Individ. Ends | Carriers | No. of Individ. Ends | | | Amps | Ft |
| 95106 | 0.062 x 0.016 | 1.57 x 0.41 | 20 | 16 | 96 | 949 | 10.2 | 100, 500, 1000 | 30.5, 152, 305 |
| 95079 | 0.250 x 0.030 | 6.35 x 0.76 | 14 | 27 | 168 | 4200 | 27.9 | 100, 500, 1000 | 30.5, 152, 305 |



FIT® Wire Wire Management

Tinned Copper Braid

Tubular



A-A-59569

Color

- Silver

Material

- Tinned copper braid

Availability

See tables

Spools may contain multiple lengths

Tinned Copper

| Part No. | Inside Diameter, Nom. | | Braid Construction | | | AWG Equivalent, Approx. | CMA, Nom. | Current-Carrying Capacity | Standard Put-Ups | |
|----------|-----------------------|-------|--------------------|----------|--------------------|-------------------------|-----------|---------------------------|------------------|----------|
| | Inch | mm | AWG of Indiv. Ends | Carriers | No. of Indiv. Ends | | | | Amps | Ft |
| 2160 | 0.031 | 0.79 | 36 | 24 | 24 | 22 | 600 | 7 | 100, 250 | 30.6, 76 |
| 2162 | 0.062 | 1.57 | 36 | 24 | 48 | 19 | 1200 | 11 | 100, 250 | 30.6, 76 |
| 2163 | 0.078 | 1.98 | 36 | 24 | 72 | 18 | 1800 | 16 | 100, 250 | 30.6, 76 |
| 2164 | 0.109 | 2.77 | 36 | 24 | 96 | 16 | 2400 | 19 | 100, 250 | 30.6, 76 |
| 2166 | 0.125 | 3.18 | 36 | 24 | 120 | 15 | 3000 | 25 | 100, 250 | 30.6, 76 |
| 2167 | 0.156 | 3.96 | 36 | 24 | 240 | 12 | 6000 | 40 | 100, 250 | 30.6, 76 |
| 2168 | 0.171 | 4.34 | 36 | 24 | 168 | 14 | 4200 | 32 | 100, 250 | 30.6, 76 |
| 2170 | 0.203 | 5.16 | 34 | 24 | 192 | 11 | 7630 | 46 | 100 | 30.5 |
| 2171 | 0.250 | 6.35 | 36 | 24 | 384 | 10 | 9600 | 53 | 100 | 30.5 |
| 2171/1 | 0.281 | 7.14 | 30 | 24 | 120 | 9 | 12,060 | 60 | 100 | 30.5 |
| 2172 | 0.375 | 9.53 | 36 | 48 | 384 | 10 | 9600 | 53 | 100 | 30.5 |
| 2173 | 0.437 | 11.10 | 30 | 24 | 240 | 6 | 24,120 | 90 | 100 | 30.5 |
| 2174 | 0.500 | 12.70 | 36 | 48 | 528 | 9 | 13,200 | 62 | 100 | 30.5 |
| 2175 | 0.462 | 11.73 | 30 | 48 | 480 | 3 | 48,240 | 145 | 100 | 30.5 |
| 2175/1 | 0.656 | 16.66 | 30 | 48 | 768 | 1 | 77,180 | 190 | 100 | 30.5 |
| 2176 | 0.781 | 19.84 | 36 | 48 | 864 | 7 | 21,600 | 88 | 100 | 30.5 |

Extra-Large Tinned Copper

| Part No. | Inside Diameter, Nom. | | Braid Construction | | | AWG Equivalent, Approx. | CMA, Nom. | Current-Carrying Capacity | Standard Put-Ups | |
|----------|-----------------------|-------|--------------------|----------|--------------------|-------------------------|-----------|---------------------------|------------------|------|
| | Inch | mm | AWG of Indiv. Ends | Carriers | No. of Indiv. Ends | | | | Amps | Ft |
| 2177 | 0.875 | 22.23 | 30 | 48 | 336 | 5 | 33,700 | 100 | 100 | 30.5 |
| 2178 | 1.000 | 25.40 | 30 | 48 | 384 | 4 | 38,600 | 120 | 100 | 30.5 |
| 2179 | 1.125 | 28.58 | 30 | 48 | 432 | 4 | 43,330 | 130 | 100 | 30.5 |
| 2180* | 1.250 | 31.75 | 30 | 48 | 480 | 3 | 48,150 | 145 | 100 | 30.5 |
| 2181 | 1.375 | 34.93 | 30 | 48 | 528 | 3 | 53,000 | 150 | 100 | 30.5 |
| 2182 | 1.500 | 38.10 | 30 | 48 | 576 | 2 | 57,775 | 165 | 100 | 30.5 |

*Not A-A-59569.



FIT® Wire Wire Management

Silver-Plated Copper Braid

Tubular



A-A-59569

Color

- Silver

Material

- Silver-plated copper braid

Availability

See table

Spools may contain multiple lengths

Silver-Plated

| Part No. | Inside Diameter, Nom. | | Braid Construction | | | AWG Equivalent, Approx. | CMA, Nom. | Current-Carrying Capacity | Standard Put-Ups | |
|-------------|-----------------------|------|--------------------|----------|--------------------|-------------------------|-----------|---------------------------|------------------|------|
| | Inch | mm | AWG of Indiv. Ends | Carriers | No. of Indiv. Ends | | | | Amps | Ft |
| 2191 | 1/16 | 1.59 | 36 | 24 | 48 | 19 | 1200 | 11 | 100 | 30.5 |
| 2193 | 7/64 | 2.78 | 36 | 24 | 96 | 16 | 2400 | 19 | 100 | 30.5 |
| 2194 | 1/8 | 3.18 | 36 | 24 | 120 | 15 | 3000 | 25 | 100 | 30.5 |
| 2195 | 5/32 | 3.97 | 36 | 24 | 240 | 12 | 6000 | 40 | 100 | 30.5 |
| 2196 | 11/64 | 4.37 | 36 | 24 | 168 | 14 | 4200 | 32 | 100 | 30.5 |
| 2197 | 13/64 | 5.16 | 34 | 24 | 192 | 11 | 7640 | 46 | 100 | 30.5 |
| 2198 | 1/4 | 6.35 | 36 | 24 | 384 | 10 | 9600 | 53 | 100 | 30.5 |



Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



Как с нами связаться

Телефон: 8 (812) 309 58 32 (многоканальный)

Факс: 8 (812) 320-02-42

Электронная почта: org@eplast1.ru

Адрес: 198099, г. Санкт-Петербург, ул. Калинина, дом 2, корпус 4, литера А.