FIT® Sleeving for Rugged Applications







ow you can get tough, rugged woven sleeving for applications demanding superior abrasion resistance, high operating temperatures, or resistance to oils, solvents, and chemicals. Available in wrappable, expandable, and non-expandable configurations, the new ruggedized FIT sleeving:

Protects against the harshest abrasion

FIT sleeving is available in a variety of materials and weaves to give you whatever level of heavy-duty abrasion protection your applications need.

Withstands temperature extremes

FIT sleeving covers a range of temperatures ratings—up to 280°C.

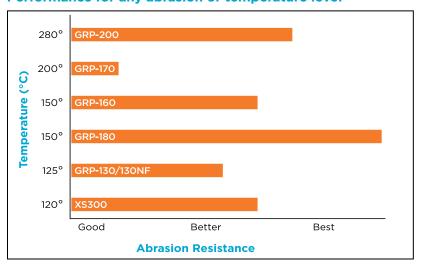
Speeds installation

FIT expandable sleeving goes on fast and slips over connectors up to three times the size of the final harness.

Covers long lengths

FIT expandable sleeving slides easily over long cables, making installation easy on lengths up to 1000 feet without pulling or fishing the cable.

Performance for any abrasion or temperature level



Offers extreme flexibility

Harnesses protected by expandable sleeving coil tightly, curve smoothly, and route easily.

Saves space

FIT sleeving protects against abrasion without the bulk and limited flexibility of conduits.

Adds protection, not weight

The light weight of FIT sleeving is of significant benefit in any application where weight is a critical issue.

Dissipates moisture quickly

FIT sleeving doesn't trap moisture, grease, or oils that can harm wire jacketing.

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

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



- -70°C to +125°C temperature range
- 10-mil PET braid
- GRP-130 is flame resistant GRP-130NF is flame retardant
- 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
- GRP-130T tool for fast, easy installation
- Color: GRP-130: Black or orange GRP-130NF: Black with white tracer

| Part No. | | Si | ze | Installation Tool Part No. | |
|---------------|-----------------|-------|-------|----------------------------|--|
| GRP-130* | GRP-130NF | Inch | mm | | |
| GRP-130-1/8 | GRP-130NF-1/8 | 0.125 | 3.18 | GRP-130T-1/4 | |
| GRP-130-1/4 | GRP-130NF-1/4 | 0.250 | 6.35 | GRP-130T-1/4 | |
| GRP-130-3/8 | GRP-130NF-3/8 | 0.375 | 9.53 | GRP-130T-1/2 | |
| GRP-130-1/2 | GRP-130NF-1/2 | 0.500 | 12.70 | GRP-130T-1/2 | |
| GRP-130-3/4 | GRP-130NF-3/4 | 0.750 | 19.05 | GRP-130T-3/4 | |
| GRP-130-1IN | GRP-130NF-1IN | 1.000 | 25.40 | GRP-130T-1IN | |
| GRP-130-1-1/4 | GRP-130NF-1-1/4 | 1.250 | 31.75 | GRP-130T-1-1/4* | |
| GRP-130-1-1/2 | GRP-130NF-1-1/2 | 1.500 | 38.10 | GRP-130T-1-1/4* | |
| GRP-130-2IN | GRP-130NF-2IN | 2.000 | 50.80 | GRP-130T-1-1/4* | |
| | | | | , | |

^{*}Designed for up to 1.22" cable diameter

Advanced Protection Expandable Sleeving GRP-160

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



- -45°C to +150°C temperature range
- 20-mil nylon polyamide monofilament
- Extreme abrasion resistance without losing flexibility or durability
- · Cuts cleanly with hot knife
- Resists fuels, solvents, salt water, chemicals, and UV rays
- Expandable to 150%
- Color: Black

| Part No. | Nominal Size | | Expansion Range | | |
|---------------|--------------|-------|-----------------|---------------|--|
| | Inch | mm | Inch | mm | |
| GRP-160-1/4 | 1/4 | 6.35 | 0.250 - 0.500 | 6.36 - 12.70 | |
| GRP-160-1/2 | 1/2 | 12.70 | 0.500 - 1.000 | 12.70 - 25.40 | |
| GRP-160-3/4 | 3/4 | 19.05 | 0.750 - 1.250 | 19.05 - 31.75 | |
| GRP-160-1IN | 1 | 25.40 | 1.000 - 1.500 | 25.40 - 38.10 | |
| GRP-160-1-1/4 | 1-1/4 | 31.75 | 1.250 - 2.000 | 31.75 - 50.80 | |
| GRP-160-1-3/4 | 1-3/4 | 44.45 | 1.750 - 2.750 | 44.45 - 69.85 | |
| GRP-160-2-1/4 | 2-1/4 | 57.15 | 2.250 - 3.000 | 57.15 - 76.20 | |

Advanced Chemical Resistance Expandable Sleeving GRP-170

The extremely lightweight sleeving that is impervious to virtually all chemicals.



- -70°C to +200°C temperature range
- 8-mil polyphenylene sulfide (PPS) monofilaments
- Resists acids, bases, solvents, and fuels
- Ultra-lightweight

- High abrasion resistance
- Expandable to 150%
- Flame resistant
- · Cuts cleanly with hot knife
- Color: Black

| Part No. | Nominal Size | | Expansion Range | | |
|---------------|--------------|-------|-----------------|---------------|--|
| | Inch | mm | Inch | mm | |
| GRP-170-1/8 | 1/8 | 3.18 | 0.094 - 0.250 | 2.38 - 6.35 | |
| GRP-170-1/4 | 1/4 | 6.35 | 0.125 - 0.375 | 3.18 - 9.53 | |
| GRP-170-1/2 | 1/2 | 12.70 | 0.250 - 0.750 | 6.35 - 19.05 | |
| GRP-170-3/4 | 3/4 | 19.05 | 0.500 - 1.250 | 12.70 - 31.75 | |
| GRP-170-1-1/4 | 1-1/4 | 31.75 | 0.750 - 1.750 | 19.05 - 44.45 | |
| GRP-170-1-3/4 | 1-3/4 | 44.45 | 1.250 - 2.500 | 31.75 - 63.50 | |

Maximum Performance Expandable Sleeving GRP-180

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



- Superior abrasion resistance
- -60°C to +150°C temperature range
- Flat 20-mil nylon filaments for superior coverage and abrasion resistance
- Easy to install

- · Resists fuels, solvents, chemicals, salt water, and **UV** rays
- Smooth inner wall to prevent internal abrasion damage
- Color: Black

| | Part No. | Nominal Size | | Expansion Range | | |
|--------------------------|---------------|--------------|-------|-----------------|---------------|--|
| | | Inch | mm | Inch | mm | |
| Assessment of the second | GRP-180-1/2 | 1/2 | 12.70 | 0.375 - 0.625 | 9.53 - 15.88 | |
| | GRP-180-3/4 | 3/4 | 19.05 | 0.625 - 1.000 | 15.88 - 25.40 | |
| 2222 | GRP-180-1IN | 1 | 25.40 | 0.875 - 1.250 | 22.22 - 31.75 | |
| Service . | GRP-180-1-1/4 | 1-1/4 | 31.75 | 1.000 - 1.500 | 25.40 - 38.10 | |
| | GRP-180-1-3/4 | 1-3/4 | 44.45 | 1.500 - 2.000 | 38.10 - 50.80 | |
| | GRP-180-2IN | 2 | 50.80 | 1.750 - 2.500 | 44.45 - 69.85 | |
| | | | | | | |

Extreme Performance Sleeving **GRP-200**

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



- -70°C to +280°C temperature range
- 16-mil PTFE filaments
- Cut and abrasion resistant
- Flame resistant
- · Resists virtually all chemicals and **UV** rays
- Thermally stable
- Low outgassing
- · Suitable for plenum use
- Expandable to 150% for easy installation
- Color: Natural

| Part No. | Nominal Size | | Expansion Range | | |
|---------------|--------------|-------|-----------------|---------------|--|
| | Inch | mm | Inch | mm | |
| GRP-200-1/8 | 1/8 | 3.18 | 0.094 - 0.250 | 2.38 - 6.35 | |
| GRP-200-1/4 | 1/4 | 6.35 | 0.188 - 0.375 | 4.76 - 9.53 | |
| GRP-200-3/8 | 3/8 | 9.53 | 0.250 - 0.750 | 6.35 - 19.06 | |
| GRP-200-1/2 | 1/2 | 12.70 | 0.375 - 0.875 | 9.53 - 22.23 | |
| GRP-200-3/4 | 3/4 | 19.05 | 0.625 - 1.250 | 15.88 - 31.75 | |
| GRP-200-1-1/4 | 1-1/4 | 31.75 | 1.125 - 1.500 | 28.58 - 38.10 | |
| GRP-200-1-3/4 | 1-3/4 | 44.45 | 1.375 - 1.750 | 34.93 - 44.45 | |
| GRP-200-2IN | 2 | 50.80 | 1.688 - 2.125 | 42.88 - 53.98 | |
| | | | | | |

Abrasion-Resistant Non-Expandable **Nylon Sleeving** XS300

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



- -45°C to +120°C temperature range
- 45-mil thick nylon
- Excellent abrasion resistance
- Tightly woven
- · Cuts cleanly with scissors
- Deflects high-pressure hose ruptures
- Resists fuels, chemicals, UV rays, rot, and vermin
- ISO 6945 Certified
- Color: Black

| Part No. | S | ize |
|----------|------|-------|
| | Inch | mm |
| XS300071 | 0.71 | 18.03 |
| XS300083 | 0.83 | 21.08 |
| XS300092 | 0.92 | 23.37 |
| XS300100 | 1.00 | 25.40 |
| XS300113 | 1.13 | 28.70 |
| XS300125 | 1.25 | 31.75 |
| XS300134 | 1.34 | 34.04 |
| XS300159 | 1.59 | 40.39 |

| Part No. | S | ize |
|----------|------|-------|
| | Inch | mm |
| XS300175 | 1.75 | 44.45 |
| XS300207 | 2.07 | 52.58 |
| XS300238 | 2.38 | 60.45 |
| XS300254 | 2.54 | 64.52 |
| XS300286 | 2.86 | 72.64 |
| XS300334 | 3.34 | 84.84 |
| XS300366 | 3.66 | 92.96 |

FIT Rugged Sleeving at a Glance

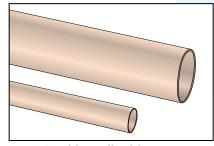
| | GRP-130 | GRP-130NF | GRP-160 | GRP-170 | GRP-180 | GRP-200 | XS300 |
|--------------------------|--|---|-------------------------|--|----------------------------------|----------------------------------|--------------------------|
| | Split | Flame Retardant Split | Advanced Performance | Advanced Chemical Resistance | Extreme Abrasion Resistant | Extreme Performance | Abrasion Resistant |
| Material | PET | PET | 6-6 Nylon | PPS | Polyamide | PTFE | Nylon |
| Temperature (°C) | -70 to +125 | -70 to +125 | -45 to +150 | -70 to +200 | -60 to +150 | -70 to +280 | -45 to +120 |
| Cuts With | Hot Knife | Hot Knife | Hot Knife | Hot Knife | Hot Knife | Hot Knife/ Wire | Scissors |
| Temperature Range | Good | Good | Better | Better | Better | Best | Good |
| Outgassing Resistance | Better | Better | Good | Best | Good | Best | Good |
| Abrasion Resistance | Good | Better | Better | Good | Best | Best | Best |
| Cut Resistance | Good | Better | Better | Good | Best | Best | Good |
| Chemical Resistance | Good | Good | Better | Best | Good | Best | Good |
| UV Resistance | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Halogen Free | Yes | Yes | Yes | Yes | No | No | Yes |
| Expandable | No | No | Yes | Yes | Yes | Yes | No |
| Wrappable | Yes | Yes | No | No | No | No | No |
| Sizes | 1/8" - 2" | 1/8" - 2" | 1/4" - 2-1/4" | 1/8" - 1-3/4" | 1/2" - 2" | 1/8" - 2" | .71"- 3.66" |
| Approvals | UL UZKX2 UL 94V-0 CSA 5836 01 FT2 ABYC REACH ROHS | UL UZKX2 UL VW-1 FAR-25.853 CSA 5836 01 FT2 REACH ROHS | ROHS | UL 94V-0 FAR-25.853 Appendix F ROHS | ROHS | FAR-25.853 Appendix F ROHS | ISO 6945 MSHA ROHS |

More Choices in Sleeving

Our new FIT sleeving for rugged applications joins our extensive line of sleeving to satisfy the widest range of needs for protecting, organizing, and routing wires, cables, hoses, and other requirements.

Flexible PTFE Tubing

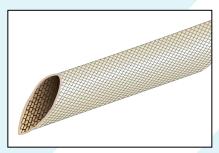
Non-expandable tubing with the abrasion resistance, excellent dielectric properties, and wide temperature range of PTFE, in standard and thin-wall versions.



TFT-200 thin-wall tubing
TFT-250 standard-wall tubing

Fiberglass Sleeving

An assortment of coated and uncoated fiberglass sleeving products provides varying degrees of flexibility, protection from extreme temperatures, abrasion, and chemicals.



AF-155 acrylic-coated fiberglass sleeving

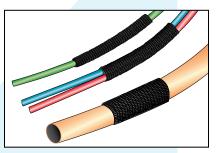
PIF-130 PVC-coated fiberglass sleeving

PIF-200 silicone-coated fiberglass sleeving

PIF-240 uncoated fiberglass sleeving

Braided Sleeving

A wide range of expandable and wrappable sleeving for applications not requiring the extreme abrasion resistance of our new rugged sleeving.



GRP-110 expandable polyester sleeving

GRP-120 flame-retardant expandable polyester sleeving

GRP-110NF non-fraying, expandable PET sleeving

GRP-120NF flame-retardant nonfraying, expandable PET sleeving

XS-100HD heavy-duty expandable PET sleeving

XS-200N Non-Expandable nylon sleeving

ZIP-GRP expandable polyester webbed sleeving

The cables you trust. The service you deserve.

Every application is critical and cable failure is not an option when the safety of your equipment and personnel is paramount. Specify Alpha Wire FIT wire management for extreme environments and crucial applications, since the integrity of your system is only as robust as the products you use.

Superior availability

Alpha offers FIT wire management products from stock in most sizes and constructions, in small quantities, so you can order them when you need them. Our products are available for same-day shipment, eliminating long lead times.

Service and support, second-to-none

Selecting the correct wire management products is essential to overall system reliability, performance, and safety. So we make it easy for you to select the right Alpha product for your specific application. Our online resources include a wire and cable selection guide, technical information, full product catalog, and a distributor locator to make it easy to select and get the cable or wire management product you need. Just visit www.alphawire.com!



GLOBAL HEADQUARTERS 711 Lidgerwood Avenue Elizabeth | NJ 07207-0711 | USA Toll Free: 1-800-52 ALPHA Tel: 1-908-925-8000 Fax: 1-908-925-5411

Fax: 1-908-925-5411 E-mail: info@alphawire.com EUROPE
Alpha Wire International
Sunbury Int'l Business Centre | Brooklands Close | Windmill Road
Sunbury-on-Thames | Middlesex | United Kingdom | TW16 7DX
Tel: +44-(0)-800-288-8809

Fax: +44-(0)-800-288-8810 E-mail: europe@alphawire.com ASIA PACIFIC
Alpha Wire
Silver Center | Room 1708 | North Shanxi Road 1388
Shanghai | China | 200060
Tel: +86-21-61498201/61498205
Fax: +86-21-61498001
E-mail: apac@alphawire.com