

# FIT<sup>®</sup> Sleeving for Rugged Applications



# Rugged sleeving for harsh applications

**N**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:

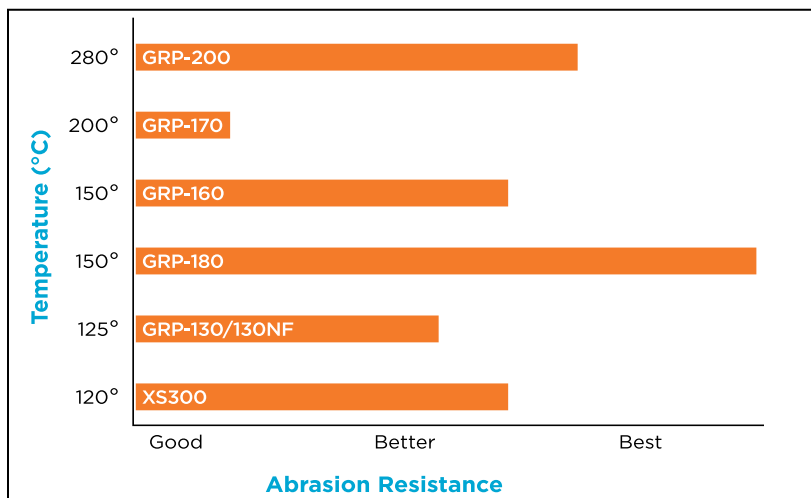
## Protects against the harshest abrasion

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.

## Performance for any abrasion or temperature level



## 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.

## 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.		Size		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
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
GRP-180-1IN	1	25.40	0.875 - 1.250	22.22 - 31.75
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.	Size	
	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.	Size	
	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

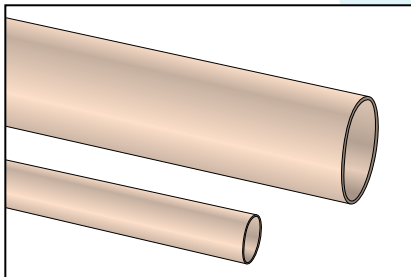
	GRP-130	GRP-130NF	GRP-160	GRP-170	GRP-180	GRP-200	XS300
	Split	Flame Retardant Split	Advanced Performance	Advanced Chemical Resistance	Extreme Abrasion Resistant	Extreme Performance	Abrasion Resistant
Material	PET	PET	6-6 Nylon	PPS	Polyamide	PTFE	Nylon
Temperature (°C)	-70 to +125	-70 to +125	-45 to +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

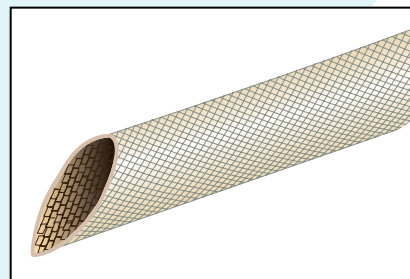
Non-expandable tubing with the abrasion resistance, excellent dielectric properties, and wide temperature range of PTFE, in standard and thin-wall versions.



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

### Fiberglass Sleeving

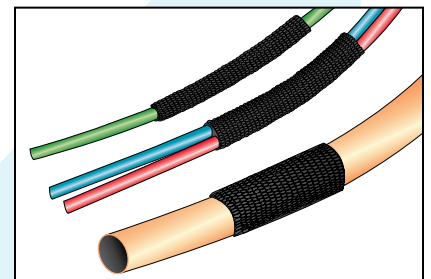
An assortment of coated and uncoated fiberglass sleeving products provides varying degrees of flexibility, protection from extreme temperatures, abrasion, and chemicals.



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 non-fraying, 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](http://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  
E-mail: [info@alphawire.com](mailto: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](mailto:europe@alphawire.com)



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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](mailto:apac@alphawire.com)