Rugged sleeving for harsh 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.

> 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

Superior availability

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.

The cables you trust.

The service you deserve.

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

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!

FIT® Sleeving for Rugged Applications





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



Lit. No. FWM-Exp-Bro-1008 Supersedes: New

Rugged sleeving for harsh applications

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Lit. No. FWM-Exp-Bro-1008 Supersedes: New

Flexible. Semiriaid Wrappable Sleeving GRP-130 and GRP-130NF

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



Advanced Protection Expandable Sleeving GRP-160

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



Advanced Chemical Resistance Expandable Sleeving **GRP-170**

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



- -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

water, chemicals, and UV rays

Expandable to 150%

Color: Black

Part N	Part No.		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 122" cable diamete	r			

*Designed for up to 1.22" cable diamete

- -45°C to +150°C temperature range Resists fuels, solvents, salt 20-mil nylon polyamide
- monofilament
- Extreme abrasion resistance without losing flexibility or durability
- Cuts cleanly with hot knife

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	

- -70°C to +200°C temperature range
- 8-mil polyphenylene sulfide (PPS) monofilaments
- Resists acids, bases, solvents, and fuels
- Ultra-lightweight
- Part No. Nominal Size **Expansion Range** Inch mm Inch mm 2.38 - 6.35 GRP-170-1/8 0.094 - 0.250 1/8 3.18 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 3/4 GRP-170-3/4 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.



Extreme Performance Sleeving **GRP-200**

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

outgassing are critical.



Abrasion-Resistant Non-Expandable Nylon Sleeving

Professional-grade

abrasion damage.

protection with smooth

inner wall to prevent internal

- **XS300**

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



Part No.

 Flame resistant Resists virtually all chemicals and UV rays

Part No.	Nomir	Nominal Size		on 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

- 45-mil thick nylon
- Tightly woven
- Cuts cleanly with scissors

Part No.	Si	ze	Part No.	Part No. S
	Inch	mm		Inch
XS300071	0.71	18.03	XS300175	XS300175 1.75
XS300083	0.83	21.08	XS300207	XS300207 2.07
XS300092	0.92	23.37	XS300238	XS300238 2.38
XS300100	1.00	25.40	XS300254	XS300254 2.54
XS300113	1.13	28.70	XS300286	XS300286 2.86
XS300125	1.25	31.75	XS300334	XS300334 3.34
XS300134	1.34	34.04	XS300366	XS300366 3.66
XS300159	1.59	40.39		

Expandable to 150% Flame resistant

Cuts cleanly with hot knife

High abrasion resistance

,,	Cuts cleanly with not ki
:	 Color: Black

Easy to install

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

	Nominal Size		Expansion Range			
	Inch mm		Inch	mm		
2	1/2	12.70	0.375 - 0.625	9.53 - 15.88		
4	3/4	19.05	0.625 - 1.000	15.88 - 25.40		
N	1	25.40	0.875 - 1.250	22.22 - 31.75		
/4	1-1/4	31.75	1.000 - 1.500	25.40 - 38.10		
/4	1-3/4	44.45	1.500 - 2.000	38.10 - 50.80		
N	2	50.80	1.750 - 2.500	44.45 - 69.85		

- -70°C to +280°C temperature range
- 16-mil PTFE filaments
- Cut and abrasion resistant
- Low outgassing
- Suitable for plenum use

Thermally stable

- Expandable to 150% for easy installation
- Color: Natural

- -45°C to +120°C temperature range
- Excellent abrasion resistance

- Deflects high-pressure hose ruptures
- Resists fuels, chemicals, UV rays, rot, and vermin
- ISO 6945 Certified
- Color: Black

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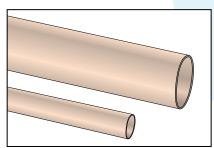
	GRP-130	GRP-130NF	GRP-160	GRP-170	GRP-180	GRP-200	XS300
	Split	Flame Retardant Split	Advanced Performance	Advanced Chemical Resistance	Extreme Abrasion Resistant	Extreme Performance	Abrasion Resistant
Material	PET	PET	6-6 Nylon	PPS	Polyamide	PTFE	Nylon
Temperature (°C)	-70 to +125	-70 to +125	-45 to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

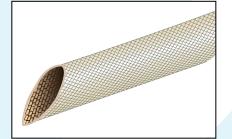
Non-expandable tubing with the abrasion resistance, excellent dielectric properties, and wide temperature range of PTFE, in standard and thin-wall versions.



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

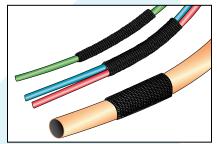
PIF-130 PVC-coated fiberglass sleeving

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



Flexible. Semiriaid Wrappable Sleeving GRP-130 and GRP-130NF

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



Advanced Protection Expandable Sleeving GRP-160

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



Advanced Chemical Resistance Expandable Sleeving **GRP-170**

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



- -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

water, chemicals, and UV rays

Expandable to 150%

Color: Black

Part N	Part No.		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 122" cable diamete	r			

*Designed for up to 1.22" cable diamete

- -45°C to +150°C temperature range Resists fuels, solvents, salt 20-mil nylon polyamide
- monofilament
- Extreme abrasion resistance without losing flexibility or durability
- Cuts cleanly with hot knife

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	

- -70°C to +200°C temperature range
- 8-mil polyphenylene sulfide (PPS) monofilaments
- Resists acids, bases, solvents, and fuels
- Ultra-lightweight
- Part No. Nominal Size **Expansion Range** Inch mm Inch mm 2.38 - 6.35 GRP-170-1/8 0.094 - 0.250 1/8 3.18 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 3/4 GRP-170-3/4 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

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Extreme Performance Sleeving **GRP-200**

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

outgassing are critical.



Abrasion-Resistant Non-Expandable Nylon Sleeving

Professional-grade

abrasion damage.

protection with smooth

inner wall to prevent internal

- **XS300**

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



Part No.

 Flame resistant Resists virtually all chemicals and UV rays

Part No.	Nomir	Nominal Size		on 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

- 45-mil thick nylon
- Tightly woven
- Cuts cleanly with scissors

Part No.	Si	ze	Part No.	Part No. S
	Inch	mm		Inch
XS300071	0.71	18.03	XS300175	XS300175 1.75
XS300083	0.83	21.08	XS300207	XS300207 2.07
XS300092	0.92	23.37	XS300238	XS300238 2.38
XS300100	1.00	25.40	XS300254	XS300254 2.54
XS300113	1.13	28.70	XS300286	XS300286 2.86
XS300125	1.25	31.75	XS300334	XS300334 3.34
XS300134	1.34	34.04	XS300366	XS300366 3.66
XS300159	1.59	40.39		

Expandable to 150% Flame resistant

Cuts cleanly with hot knife

High abrasion resistance

,,	Cuts cleanly with not ki
:	 Color: Black

Easy to install

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

	Nomin	al Size	Expansion Range			
	Inch mm		Inch	mm		
2	1/2	12.70	0.375 - 0.625	9.53 - 15.88		
4	3/4	19.05	0.625 - 1.000	15.88 - 25.40		
N	1	25.40	0.875 - 1.250	22.22 - 31.75		
/4	1-1/4	31.75	1.000 - 1.500	25.40 - 38.10		
/4	1-3/4	44.45	1.500 - 2.000	38.10 - 50.80		
N	2	50.80	1.750 - 2.500	44.45 - 69.85		

- -70°C to +280°C temperature range
- 16-mil PTFE filaments
- Cut and abrasion resistant
- Low outgassing
- Suitable for plenum use

Thermally stable

- Expandable to 150% for easy installation
- Color: Natural

- -45°C to +120°C temperature range
- Excellent abrasion resistance

- Deflects high-pressure hose ruptures
- Resists fuels, chemicals, UV rays, rot, and vermin
- ISO 6945 Certified
- Color: Black

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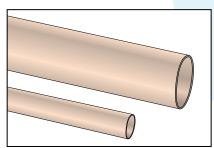
	GRP-130	GRP-130NF	GRP-160	GRP-170	GRP-180	GRP-200	XS300
	Split	Flame Retardant Split	Advanced Performance	Advanced Chemical Resistance	Extreme Abrasion Resistant	Extreme Performance	Abrasion Resistant
Material	PET	PET	6-6 Nylon	PPS	Polyamide	PTFE	Nylon
Temperature (°C)	-70 to +125	-70 to +125	-45 to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

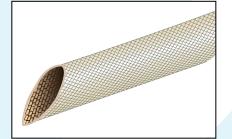
Non-expandable tubing with the abrasion resistance, excellent dielectric properties, and wide temperature range of PTFE, in standard and thin-wall versions.



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

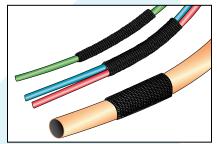
PIF-130 PVC-coated fiberglass sleeving

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



Flexible. Semiriaid Wrappable Sleeving GRP-130 and GRP-130NF

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



Advanced Protection Expandable Sleeving GRP-160

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



Advanced Chemical Resistance Expandable Sleeving **GRP-170**

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



- -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

Par	t 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 122" cable diam	leter			

*Designed for up to 1.22" cable diameter

- -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

Part No.	Nomir	nal Size	Expansio	n 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

- -70°C to +200°C temperature range
- 8-mil polyphenylene sulfide (PPS) monofilaments
- Resists acids, bases, solvents, and fuels
- Ultra-lightweight
- Part No. GRP-170-1/8 1/8 3.18 0.094 - 0.250 2.38 - 6.35 1/4 6.35 GRP-170-1/4 0.125 - 0.375 3.18 - 9.53 GRP-170-1/2 1/2 12.70 0.250 - 0.750 6.35 - 19.05 3/4 GRP-170-3/4 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.



Extreme Performance Sleeving **GRP-200**

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

outgassing are critical.



Abrasion-Resistant Non-Expandable Nylon Sleeving

XS300

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



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

Part No.

- GRP-180-1/2 GRP-180-3/4 GRP-180-1IN GRP-180-1-1/4 GRP-180-1-3/4 GRP-180-2IN
- 16-mil PTFE filaments
- Flame resistant
- Resists virtually all chemicals and UV rays

Part No.

GRP-200-1/8 GRP-200-1/4 GRP-200-3/8 GRP-200-1/2 GRP-200-3/4 GRP-200-1-1/-GRP-200-1-3/4 GRP-200-2IN

- -45°C to +120°C temperature range
- 45-mil thick nylon
- Tightly woven
- Cuts cleanly with scissors

Part No.	Si	ze	Part No.	Part No. S
	Inch	mm		Inch
XS300071	0.71	18.03	XS300175	XS300175 1.75
XS300083	0.83	21.08	XS300207	XS300207 2.07
XS300092	0.92	23.37	XS300238	XS300238 2.38
XS300100	1.00	25.40	XS300254	XS300254 2.54
XS300113	1.13	28.70	XS300286	XS300286 2.86
XS300125	1.25	31.75	XS300334	XS300334 3.34
XS300134	1.34	34.04	XS300366	XS300366 3.66
XS300159	1.59	40.39		

Color: Black

Resists fuels, solvents, salt

Expandable to 150%

water, chemicals, and UV rays

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

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

	Nomin	al Size	Expansion Range		
	Inch mm		Inch	mm	
2	1/2	12.70	0.375 - 0.625	9.53 - 15.88	
4	3/4	19.05	0.625 - 1.000	15.88 - 25.40	
N	1	25.40	0.875 - 1.250	22.22 - 31.75	
/4	1-1/4	31.75	1.000 - 1.500	25.40 - 38.10	
/4	1-3/4	44.45	1.500 - 2.000	38.10 - 50.80	
N	2	50.80	1.750 - 2.500	44.45 - 69.85	

- -70°C to +280°C temperature range
- Cut and abrasion resistant
- Low outgassing
- Suitable for plenum use

Thermally stable

- Expandable to 150% for easy installation
- Color: Natural

	Nomir	nal Size	Expansion Range		
	Inch mm		Inch	mm	
8	1/8	3.18	0.094 - 0.250	2.38 - 6.35	
4	1/4	6.35	0.188 - 0.375	4.76 - 9.53	
′8	3/8	9.53	0.250 - 0.750	6.35 - 19.06	
2	1/2	12.70	0.375 - 0.875	9.53 - 22.23	
4	3/4	19.05	0.625 - 1.250	15.88 - 31.75	
/4	1-1/4	31.75	1.125 - 1.500	28.58 - 38.10	
/4	1-3/4	44.45	1.375 - 1.750	34.93 - 44.45	
N	2	50.80	1.688 - 2.125	42.88 - 53.98	

- Excellent abrasion resistance

- Deflects high-pressure hose ruptures
- Resists fuels, chemicals, UV rays, rot, and vermin
- ISO 6945 Certified
- Color: Black

FIT Rugged Sleeving at a Glance

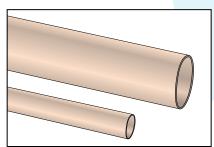
	GRP-130	GRP-130NF	GRP-160	GRP-170	GRP-180	GRP-200	XS300
	Split	Flame Retardant Split	Advanced Performance	Advanced Chemical Resistance	Extreme Abrasion Resistant	Extreme Performance	Abrasion Resistant
Material	PET	PET	6-6 Nylon	PPS	Polyamide	PTFE	Nylon
Temperature (°C)	-70 to +125	-70 to +125	-45 to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

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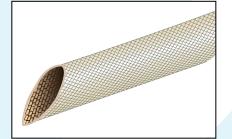
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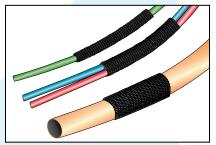
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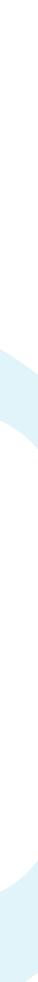
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XS-100HD heavy-duty expandable PET sleeving

XS-200N Non-Expandable nylon sleeving

ZIP-GRP expandable polyester webbed sleeving



Rugged sleeving for harsh applications

Now 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.

> 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

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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!

FIT[®] Sleeving for Rugged Applications





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 HTTMS

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 HTTMS