



FlameShield™ Firesleeve: High Temperature, Heat, Flame, Fire & Molten Metal Resistant Protection for Hoses, Cables and Wires
500°F / 260°C Continuous Rating – Higher Temperature for Shorter Periods
Industrial Grade & Heavy Duty Grade: *Silicone Rubber Coated Fiberglass Sleeve*



Protection from:

- Heat
- Flame
- Fire
- Molten Metal Splash
- Welding Splatter & Sparks

FlameShield™ firesleeve is the standard heat, flame and fire protection for hoses, tubing, cables and wiring in harsh environments.

Utilized in most industries with hot processes, liquid metal or welding operations to protect assets and prevent failures, prolonging the life of critical hoses, wires and cables, and reduce unexpected shutdowns.

Also protects personnel from hot or cold hoses and pipes.

Firesleeve can be double sleeved or undersleeved with uncoated braided or knitted sleeves for additional thermal protection.

Industrial grade FlameShield firesleeve has minimal radial elasticity (approx 5%) while the Heavy Duty grade has approximately 20% of elasticity, allowing it to pass over couplings and connectors.

The Heavy Duty version sleeve is also used to cover water-cooled high current EAF cables and cooling water hoses at metal processing plants due to the excellent molten metal splash and slag protection. Both Industrial and Heavy Duty sleeve are extremely flexible, pliable and conformable. Used for fuel, brake, oil and hydraulic line / hose protection on mobile construction equipment, mining equipment, rail cars, buses and emergency response vehicles.

Also an excellent cold temperature sleeve with flexibility to -76°C. See further material specifications on Page 1-5.

S-FSHD up to 5" / 127mm ID meets standards: UL 1441 VW-1, DIN EN ISO 15540, EN 45545, NF F 16-101, BS 6853, NF X 10-702, NF X 70 100 & NF X 70 200, BS EN ISO 11925, BS EN ISO 4589-2, BS EN 60695-2-11, ASTM D 2863 OI, DD CEN/TS 45545-2, ASTM G85 Type 2.

Industrial Grade firesleeve is fabricated from a E-type glass yarn that is **knitted** and the Heavy Duty Grade is fabricated from a dense E-type yarn that is **braided**. Both the knitted and braided firesleeve receive a thick coating of self-extinguishing silicone rubber that withstands liquid metal splash, flame, slag, sparks, and other hazards in the toughest of environments. Standard lengths are 100 feet; specific cut lengths are available. Standard colors are Oxide-Red in all sizes for both Industrial and Heavy Duty Grades, and Black is available in sizes from -04 through -32 in Heavy Duty Grade. Other colors may be available or can be ordered in lot quantity. Use ABST-LP-1 silicone rubber paint to add color markings. Nominal wall thickness is 0.140" for S-FSHD and 0.160" for S-FS.

On March 17, 2017, AB Technology Group became the largest firesleeve manufacturer globally.

FlameShield™ Firesleeve

500°F / 260°C continuous rating with weld splatter / molten metal splash protection.
2200°F / 1205°C for periods up to 15 minutes and short excursions to 3000°F / 1650°C.

FlameShield™ High Temperature Firesleeve: Industrial grade and Heavy Duty grade								
Nominal ID Inches / mm / Dash #			Industrial Grade Part Number	Price per Foot	Price per Metre	Heavy Duty Grade Part Number	Price per Foot	Price per Metre
1/4	6	-04	S-FS-M006-04	\$ 2.96	\$ 9.68	S-FSHD-M006-04-X	\$ 3.37	\$ 11.02
5/16	8	-05	S-FS-M008-05	\$ 3.21	\$ 10.53	S-FSHD-M008-05-X	\$ 3.47	\$ 11.38
3/8	10	-06	S-FS-M010-06	\$ 3.37	\$ 11.02	S-FSHD-M010-06-X	\$ 3.68	\$ 12.03
7/16	11	-07	S-FS-M011-07	\$ 3.69	\$ 12.10	S-FSHD-M011-07-X	\$ 3.92	\$ 12.86
1/2	13	-08	S-FS-M013-08	\$ 3.97	\$ 12.98	S-FSHD-M013-08-X	\$ 4.36	\$ 14.26
9/16	15	-09	S-FS-M015-09	\$ 4.21	\$ 13.80	S-FSHD-M015-09-X	\$ 4.53	\$ 14.86
5/8	16	-10	S-FS-M016-10	\$ 4.34	\$ 14.19	S-FSHD-M016-10-X	\$ 4.67	\$ 15.32
11/16	17	-11	S-FS-M017-11	\$ 4.63	\$ 15.18	S-FSHD-M017-11-X	\$ 5.07	\$ 16.63
3/4	19	-12	S-FS-M019-12	\$ 4.88	\$ 15.96	S-FSHD-M019-12-X	\$ 5.34	\$ 17.52
13/16	20	-13	S-FS-M020-13	\$ 5.55	\$ 18.20	S-FSHD-M020-13-X	\$ 5.94	\$ 19.48
7/8	22	-14	S-FS-M022-14	\$ 5.82	\$ 19.03	S-FSHD-M022-14-X	\$ 6.33	\$ 20.76
1	25	-16	S-FS-M025-16	\$ 6.42	\$ 21.06	S-FSHD-M025-16-X	\$ 7.19	\$ 23.58
1 1/8	29	-18	S-FS-M029-18	\$ 7.25	\$ 23.78	S-FSHD-M029-18-X	\$ 8.12	\$ 26.63
1 1/4	32	-20	S-FS-M032-20	\$ 7.76	\$ 25.45	S-FSHD-M032-20-X	\$ 8.68	\$ 28.47
1 3/8	35	-22	S-FS-M035-22	\$ 7.81	\$ 25.62	S-FSHD-M035-22-X	\$ 8.75	\$ 28.70
1 1/2	38	-24	S-FS-M038-24	\$ 8.04	\$ 26.37	S-FSHD-M038-24-X	\$ 9.01	\$ 29.55
1 5/8	41	-26	S-FS-M041-26	\$ 8.17	\$ 26.80	S-FSHD-M041-26-X	\$ 9.14	\$ 29.98
1 3/4	44	-28	S-FS-M044-28	\$ 10.43	\$ 34.21	S-FSHD-M044-28-X	\$ 11.68	\$ 38.31
1 7/8	48	-30	S-FS-M048-30	\$ 11.50	\$ 37.72	S-FSHD-M048-30-X	\$ 13.63	\$ 44.71
2	51	-32	S-FS-M051-32	\$ 12.18	\$ 39.95	S-FSHD-M051-32-X	\$ 16.23	\$ 53.23
2 1/4	57	-36	S-FS-M057-36	\$ 14.49	\$ 47.53	S-FSHD-M057-36	\$ 18.67	\$ 61.24
2 3/8	60	-38	S-FS-M060-38	\$ 16.79	\$ 55.07	S-FSHD-M060-38	\$ 19.93	\$ 65.37
2 1/2	64	-40	S-FS-M064-40	\$ 18.83	\$ 61.76	S-FSHD-M064-40	\$ 21.10	\$ 69.21
2 5/8	67	-42	S-FS-M067-42	\$ 21.45	\$ 70.36	S-FSHD-M067-42	\$ 23.37	\$ 76.65
2 3/4	70	-44	S-FS-M070-44	\$ 24.11	\$ 79.08	S-FSHD-M070-44	\$ 24.45	\$ 80.20
2 7/8	73	-46	S-FS-M073-46	\$ 25.91	\$ 84.98	S-FSHD-M073-46	\$ 27.24	\$ 89.35
3	76	-48	S-FS-M076-48	\$ 27.21	\$ 89.25	S-FSHD-M076-48	\$ 28.98	\$ 94.99
3 1/4	83	-52	S-FS-M083-52	\$ 29.14	\$ 95.58	S-FSHD-M083-52	\$ 30.17	\$ 98.96
3 1/2	89	-56	S-FS-M089-56	\$ 31.26	\$ 102.53	S-FSHD-M089-56	\$ 31.94	\$ 104.76
3 3/4	95	-60	S-FS-M095-60	\$ 32.34	\$ 106.08	S-FSHD-M095-60	\$ 33.63	\$ 110.31
4	102	-64	S-FS-M102-64	\$ 32.65	\$ 107.09	S-FSHD-M102-64	\$ 35.83	\$ 117.52
4 1/2	114	-72	S-FS-M114-72	\$ 44.24	\$ 145.11	S-FSHD-M114-72	\$ 39.55	\$ 129.72
5	127	-80	S-FS-M127-80	\$ 47.92	\$ 157.18	S-FSHD-M127-80	\$ 42.53	\$ 139.50
5 1/2	140	-87	S-FS-M140-87	\$ 52.71	\$ 172.88	S-FSHD-M140-87	\$ 44.96	\$ 147.47
6	152	-96	S-FS-M152-96	\$ 57.50	\$ 188.60	S-FSHD-M152-96	\$ 47.03	\$ 154.26
8	203	-128	S-FS-M203-128	\$ 76.19	\$ 249.90	S-FSHD-M203-128	\$ 67.62	\$ 221.79
10	254	-160	S-FS-M254-160	\$ 95.84	\$ 314.35	S-FSHD-M254-160	\$ 85.06	\$ 278.99
12	305	-193	S-FS-M305-193	\$ 115.00	\$ 377.20	S-FSHD-M305-193	\$ 102.07	\$ 334.79
14	356	-225	S-FS-M356-225	\$ 134.17	\$ 440.07	S-FSHD-M356-225	\$ 119.08	\$ 390.58
16	406	-257	S-FS-M406-257	\$ 153.34	\$ 502.95	S-FSHD-M406-257	\$ 136.09	\$ 446.37

- For 6" ID and larger, the size is customizable - the sizes shown above in the table are example sizes and pricing. Sizes up to 120" ID are available - Priced by quotation.
- On-site custom fabrication over non-moveable or non-disconnectable hoses and pipes is available.

Standard color is Oxide-Red - other colors such as Black, Silver/Grey, Yellow, Green and Blue are available. Add the color code after the part number.
For the "-X" value above in the part number use "-OR" for Oxide-Red or "-BK" for Black

Sizes up to 5" ID are available By-The-Foot / Metre or in standard 100 foot / 30 metre lengths
Larger diameters up to 6" ID may also be available in 50 foot / 15 metre lengths



SAE AS1072 Aviation / Aerospace Firesleeve: High Temperature, Heat, Flame & Fire Resistant - without markings - Oxide-Red and Black
500°F / 260°C Continuous Rating – Higher Temperature for Shorter Periods
Aviation / Aerospace Grade: Meets SAE AS1072 - Silicone Rubber Coated Fiberglass Sleeve



FlameShield™ Aviation / Aerospace grade firesleeve allows properly assembled hose assemblies to meet SAE AS1055D testing. We also maintain traceability records for customers buying this product. 500°F / 260°C continuous rating and with a 15 minute FAA “Fireproof” rating when assembled according to SAE AS1055.

This sleeve is extremely flexible, pliable and conformable. Typically used to protect fuel, oil, hydraulic lines and hoses, as well as critical wiring and cables. Remains flexible to -76°C (-104.8°F).

Firesleeve must be cut slightly longer than the hose or cable it is covering so it covers part of the fitting or connector. The longer the hose or cable, and if tight fitting, or if in use the hose/cable will be curved, then the longer the firesleeve needs to be. Firesleeve that is short will pull back from the fitting when the hose is bent, and if this occurs the hose assembly won't meet the TSO. Appropriate clamps must be used over the firesleeve at the fitting for aviation and Marine applications. (See our clamps and tools)

This sleeve has a radial elasticity of approximately 15% allowing it to slide over connectors, fittings and splices.

See further specifications on Page 1-6.

FlameShield™ S-AS1072 firesleeve also meets the following standards: UL 1441 VW-1, DIN EN ISO 15540, EN 45545, NF F 16-101, BS 6853, NF X 10-702, NF X 70 100 & NF X 70 200, BS EN ISO 11925, BS EN ISO 4589-2, BS EN 60695-2-11, ASTM D 2863 OI, DD CEN/TS 45545-2, ASTM G85 Type 2.

500°F / 260°C continuous rating, 800°F / 426°C for periods up to 30 minutes
2200°F / 1205°C for periods up to 15 minutes and short excursions to 3000°F / 1650°C.

FlameShield™ AS1072 Aviation / Aerospace Grade Firesleeve									
Nominal ID Inches / mm / Dash #			Part Number	Price per Foot / Metre	Nominal ID Inches / mm / Dash #			Part Number	Price per Foot / Metre
1/4	6	-04	S-AS1072-M006-04-X	\$ 3.54 / \$ 11.61	1 7/8	48	-30	S-AS1072-M048-30-X	\$ 14.99 / \$ 49.17
3/8	10	-06	S-AS1072-M010-06-X	\$ 3.86 / \$ 12.66	2	51	-32	S-AS1072-M051-32-X	\$ 17.85 / \$ 58.55
7/16	11	-07	S-AS1072-M011-07-X	\$ 4.36 / \$ 14.30	2 1/4	57	-36	S-AS1072-M057-36	\$ 20.54 / \$ 67.37
1/2	13	-08	S-AS1072-M013-08-X	\$ 4.62 / \$ 15.15	2 1/2	64	-40	S-AS1072-M064-40	\$ 23.21 / \$ 76.13
9/16	15	-09	S-AS1072-M015-09-X	\$ 4.88 / \$ 16.01	2 5/8	67	-42	S-AS1072-M067-42	\$ 26.26 / \$ 86.13
5/8	16	-10	S-AS1072-M016-10-X	\$ 5.13 / \$ 16.83	2 3/4	70	-44	S-AS1072-M070-44	\$ 26.89 / \$ 88.20
3/4	19	-12	S-AS1072-M019-12-X	\$ 5.87 / \$ 19.25	2 7/8	73	-46	S-AS1072-M073-46	\$ 30.56 / \$ 100.24
7/8	22	-14	S-AS1072-M022-14-X	\$ 6.96 / \$ 22.83	3	76	-48	S-AS1072-M076-48	\$ 32.39 / \$ 106.24
1	25	-16	S-AS1072-M025-16-X	\$ 7.90 / \$ 25.91	3 1/4	83	-52	S-AS1072-M083-52	\$ 32.91 / \$ 107.95
1 1/8	29	-18	S-AS1072-M029-18-X	\$ 8.93 / \$ 29.29	3 1/2	89	-56	S-AS1072-M089-56	\$ 35.13 / \$ 115.23
1 1/4	32	-20	S-AS1072-M032-20-X	\$ 9.55 / \$ 31.32	3 3/4	95	-60	S-AS1072-M095-60	\$ 35.89 / \$ 117.72
1 3/8	35	-22	S-AS1072-M035-22-X	\$ 9.63 / \$ 31.59	4	102	-64	S-AS1072-M102-64	\$ 37.21 / \$ 122.05
1 1/2	38	-24	S-AS1072-M038-24-X	\$ 9.90 / \$ 32.47	4 1/2	114	-72	S-AS1072-M114-72	\$ 42.72 / \$ 140.12
1 5/8	41	-26	S-AS1072-M041-26-X	\$ 10.05 / \$ 32.96	5	127	-80	S-AS1072-M127-80	\$ 46.83 / \$ 153.60
1 3/4	44	-28	S-AS1072-M044-28-X	\$ 12.85 / \$ 42.15					

For the “-X” value above in the part number, use “-OR” for Oxide-Red or “-BK” for Black

AS1072 Aerospace grade firesleeve is fabricated from a dense E-type braided sleeve and then receives a thick coating of self-extinguishing silicone rubber that withstands flame exposure, allowing qualified hose assemblies to meet FAA TSO-C42 (Propeller feathering hose assemblies), TSO-C53a (Fuel and Oil system hose assemblies) and TSO-C75 (Hydraulic hose assemblies). Standard lengths are 100 feet; specific cut lengths are available. Standard color is Oxide-Red in all sizes and Black is available in sizes -04 through -32. Nominal wall thickness is 0.16”.

This product is available By-The-Foot / Metre or in standard 100 foot / 30 metre lengths
Larger sizes available in 50 foot / 15 metre lengths

SAE AS1072 Aviation / Aerospace Firesleeve: High Temperature, Heat, Flame & Fire Resistant Type 2 Silicone Rubber Composite
500°F / 260°C Continuous Rating – Higher Temperature for Shorter Periods



FlameShield™ Aviation / Aerospace grade firesleeve is manufactured to the SAE AS1072 specification. CofC and Test Report available with orders. Our company QMS has been reviewed and accepted by major aerospace OEMs. Allows properly assembled hose assemblies to meet SAE AS1055D testing. We also maintain traceability records for customers buying this product. 500°F / 260°C continuous rating and with a 15 minute FAA “Fireproof” rating when assembled according to SAE AS1055.

This sleeve is extremely flexible, pliable and conformable. Typically used to protect fuel, oil, hydraulic lines and hoses, as well as critical wiring and cables. Remains flexible to -76°C (-104.8°F).

Firesleeve must be cut slightly longer than the hose or cable it is covering so it covers part of the fitting or connector. The longer the hose or cable, and if tight fitting, or if in use the hose/cable will be curved, then the longer the firesleeve needs to be. Firesleeve that is short will pull back from the fitting when the hose is bent, and if this occurs the hose assembly won't meet the TSO. Appropriate clamps must be used over the firesleeve at the fitting for aviation and Marine applications. (See our clamps and tools)

This sleeve has a radial elasticity of approximately 15% allowing it to slide over connectors, fittings and splices.

For further specifications see Technical Data page 1-6. This sleeve is marked per the AS1072 specification. Other markings such as tradenames may be added.

FlameShield™ S-AS1072 firesleeve is also compliant to the following standards: UL 1441 VW-1, DIN EN ISO 15540, EN 45545, NF F 16-101, BS 6853, NF X 10-702, NF X 70 100 & NF X 70 200, BS EN ISO 11925, BS EN ISO 4589-2, BS EN 60695-2-11, ASTM D 2863 OI, DD CEN/TS 45545-2, ASTM G85 Type 2.

500°F / 260°C continuous rating, 800°F / 426°C for periods up to 30 minutes
2200°F / 1205°C for periods up to 15 minutes and short excursions to 3000°F / 1650°C.

FlameShield™ SAE AS1072 Aviation / Aerospace Grade Firesleeve with Marking									
Nominal ID Inches / mm / Dash #			Part Number	Price per Foot / Metre	Nominal ID Inches / mm / Dash #			Part Number	Price per Foot / Metre
1/4	6	-04	AS1072-04 SIL-FG	\$ 3.99 / \$ 13.09	1 3/4	44	-28	AS1072-28 SIL-FG	\$ 13.88 / \$ 45.52
5/16	8	-05	AS1072-05 SIL-FG	\$ 4.17 / \$ 13.66	1 7/8	48	-30	AS1072-30 SIL-FG	\$ 16.19 / \$ 53.10
3/8	10	-06	AS1072-06 SIL-FG	\$ 4.34 / \$ 14.24	2	51	-32	AS1072-32 SIL-FG	\$ 19.28 / \$ 63.23
7/16	11	-07	AS1072-07 SIL-FG	\$ 4.88 / \$ 16.01	2 1/4	57	-36	AS1072-36 SIL-FG	\$ 22.18 / \$ 72.76
1/2	13	-08	AS1072-08 SIL-FG	\$ 5.16 / \$ 16.92	2 3/8	60	-38	AS1072-38 SIL-FG	\$ 23.63 / \$ 77.51
9/16	15	-09	AS1072-09 SIL-FG	\$ 5.44 / \$ 17.84	2 1/2	64	-40	AS1072-40 SIL-FG	\$ 25.07 / \$ 82.22
5/8	16	-10	AS1072-10 SIL-FG	\$ 5.71 / \$ 18.73	2 5/8	67	-42	AS1072-42 SIL-FG	\$ 28.36 / \$ 93.02
11/16	17	-11	AS1072-11 SIL-FG	\$ 6.11 / \$ 20.04	2 3/4	70	-44	AS1072-44 SIL-FG	\$ 29.04 / \$ 95.26
3/4	19	-12	AS1072-12 SIL-FG	\$ 6.51 / \$ 21.35	2 7/8	73	-46	AS1072-46 SIL-FG	\$ 33.01 / \$ 108.26
13/16	20	-13	AS1072-13 SIL-FG	\$ 7.11 / \$ 23.32	3	76	-48	AS1072-48 SIL-FG	\$ 34.98 / \$ 114.74
7/8	22	-14	AS1072-14 SIL-FG	\$ 7.69 / \$ 25.22	3 1/4	83	-52	AS1072-52 SIL-FG	\$ 35.54 / \$ 116.58
1	25	-16	AS1072-16 SIL-FG	\$ 8.70 / \$ 28.54	3 1/2	89	-56	AS1072-56 SIL-FG	\$ 37.94 / \$ 124.44
1 1/8	29	-18	AS1072-18 SIL-FG	\$ 9.55 / \$ 31.32	3 3/4	95	-60	AS1072-60 SIL-FG	\$ 38.76 / \$ 127.14
1 1/4	32	-20	AS1072-20 SIL-FG	\$ 10.48 / \$ 34.37	4	102	-64	AS1072-64 SIL-FG	\$ 40.19 / \$ 131.81
1 3/8	35	-22	AS1072-22 SIL-FG	\$ 11.33 / \$ 37.16	4 1/2	114	-72	AS1072-72 SIL-FG	\$ 46.14 / \$ 151.33
1 1/2	38	-24	AS1072-24 SIL-FG	\$ 12.18 / \$ 39.95	5	127	-80	AS1072-80 SIL-FG	\$ 50.58 / \$ 165.89
1 5/8	41	-26	AS1072-26 SIL-FG	\$ 13.03 / \$ 42.74	6	162	-96	AS1072-96 SIL-FG	\$ 60.69 / \$ 199.08

SAE AS1072 Aerospace grade firesleeve is fabricated from a dense E-type braided sleeve and then receives a thick coating of self-extinguishing silicone rubber that withstands flame exposure, allowing qualified hose assemblies to meet FAA TSO-C42 (Propeller feathering hose assemblies), TSO-C53a (Fuel and Oil system hose assemblies) and TSO-C75 (Hydraulic hose assemblies). Standard lengths are 100 feet; specific cut lengths are available. Standard color is Oxide-Red with black printing. Black sleeve with white printing is available. Other colors available.

This product is available By-The-Foot / Metre or in standard 100 foot / 30 metre lengths
Larger sizes available in 50 foot / 15 metre lengths



**NSN / NATO Aerospace Sleeve meeting SAE AS1072
Flame & Fire Resistant Type 2 Silicone Rubber Composite for
“Sleeve, hose assembly, fire protection”
500°F / 260°C Continuous Rating – Higher Temperature for Shorter Periods**



FlameShield™ Aviation / Aerospace grade firesleeve is manufactured to the SAE AS1072 specification. CofC and Test Report available with orders. Our company QMS has been reviewed and accepted by major aerospace OEMs. Allows properly assembled hose assemblies to meet SAE AS1055D testing. We also maintain traceability records for customers buying this product. 500°F / 260°C continuous rating and with a 15 minute FAA “Fireproof” rating when assembled according to SAE AS1055.

This sleeve is extremely flexible, pliable and conformable. Typically used to protect fuel, oil, hydraulic lines and hoses, as well as critical wiring and cables. Remains flexible to -76°C (-104.8°F).

Firesleeve must be cut slightly longer than the hose or cable it is covering so it covers part of the fitting or connector. The longer the hose or cable, and if tight fitting, or if in use the hose/cable will be curved, then the longer the firesleeve needs to be. Firesleeve that is short will pull back from the fitting when the hose is bent, and if this occurs the hose assembly won't meet the TSO. Appropriate clamps must be used over the firesleeve at the fitting for aviation and Marine applications. (See our clamps and tools)

This sleeve has a radial elasticity of approximately 15% allowing it to slide over connectors, fittings and splices.

For further specifications see Technical Data Page. This sleeve is marked per the AS1072 specification. Other markings such as tradenames, symbols, etc. may be added.

FlameShield™ S-AS1072 firesleeve is also compliant to the following standards: UL 1441 VW-1, DIN EN ISO 15540, EN 45545, NF F 16-101, BS 6853, NF X 10-702, NF X 70 100 & NF X 70 200, BS EN ISO 11925, BS EN ISO 4589-2, BS EN 60695-2-11, ASTM D 2863 OI, DD CEN/TS 45545-2, ASTM G85 Type 2.

**500°F / 260°C continuous rating, 800°F / 426°C for periods up to 30 minutes
2200°F / 1205°C for periods up to 15 minutes and short excursions to 3000°F / 1650°C.**

FlameShield™ NSN / NATO SAE AS1072 Aerospace Grade Sleeve with Marking									
Nominal ID Inches / mm / Dash #			Part Number (Yellow highlights NSN/NATO Spec)	Price per Foot / Metre	Nominal ID Inches / mm / Dash #			Part Number (Yellow highlights NSN/NATO Spec)	Price per Foot / Metre
1/4	6	-04	AS1072-04 SIL-FG	\$ 3.99 / \$ 13.09	1 3/4	44	-28	5970-14-413-6220	\$ 13.88 / \$ 45.52
5/16	8	-05	5970-14-455-2318	\$ 4.17 / \$ 13.66	1 7/8	48	-30	AS1072-30 SIL-FG	\$ 16.19 / \$ 53.10
3/8	10	-06	5970-14-455-2322	\$ 4.34 / \$ 14.24	2	51	-32	5970-14-413-6221	\$ 19.28 / \$ 63.23
7/16	11	-07	AS1072-07 SIL-FG	\$ 4.88 / \$ 16.01	2 1/4	57	-36	5970-14-413-6222	\$ 22.18 / \$ 72.76
1/2	13	-08	5970-14-455-2324	\$ 5.16 / \$ 16.92	2 3/8	60	-38	AS1072-38 SIL-FG	\$ 23.63 / \$ 77.51
9/16	15	-09	AS1072-09 SIL-FG	\$ 5.44 / \$ 17.84	2 1/2	64	-40	5970-14-455-2328	\$ 25.07 / \$ 82.22
5/8	16	-10	5970-14-413-6212	\$ 5.71 / \$ 18.73	2 5/8	67	-42	AS1072-42 SIL-FG	\$ 28.36 / \$ 93.02
11/16	17	-11	AS1072-11 SIL-FG	\$ 6.11 / \$ 20.04	2 3/4	70	-44	AS1072-44 SIL-FG	\$ 29.04 / \$ 95.26
3/4	19	-12	5970-14-413-6213	\$ 6.51 / \$ 21.35	2 7/8	73	-46	AS1072-46 SIL-FG	\$ 33.01 / \$ 108.26
13/16	20	-13	AS1072-13 SIL-FG	\$ 7.11 / \$ 23.32	3	76	-48	5970-14-455-2331	\$ 34.98 / \$ 114.74
7/8	22	-14	5970-14-413-6214	\$ 7.69 / \$ 25.22	3 1/4	83	-52	AS1072-52 SIL-FG	\$ 35.54 / \$ 116.58
1	25	-16	5970-14-413-6215	\$ 8.70 / \$ 28.54	3 1/2	89	-56	5970-14-455-2332	\$ 37.94 / \$ 124.44
1 1/8	29	-18	AS1072-18 SIL-FG	\$ 9.55 / \$ 31.32	3 3/4	95	-60	AS1072-60 SIL-FG	\$ 38.76 / \$ 127.14
1 1/4	32	-20	5970-14-413-6216	\$ 10.48 / \$ 34.37	4	102	-64	5970-14-455-2334	\$ 40.19 / \$ 131.81
1 3/8	35	-22	AS1072-22 SIL-FG	\$ 11.33 / \$ 37.16	4 1/2	114	-72	AS1072-72 SIL-FG	\$ 46.14 / \$ 151.33
1 1/2	38	-24	5970-14-413-6217	\$ 12.18 / \$ 39.95	5	127	-80	AS1072-80 SIL-FG	\$ 50.58 / \$ 165.89
1 5/8	41	-26	AS1072-26 SIL-FG	\$ 13.03 / \$ 42.74	6	162	-96	AS1072-96 SIL-FG	\$ 60.69 / \$ 199.08

SAE AS1072 Aerospace grade firesleeve is fabricated from a dense E-type braided sleeve and then receives a thick coating of self-extinguishing silicone rubber that withstands flame exposure, allowing qualified hose assemblies to meet FAA TSO-C42 (Propeller feathering hose assemblies), TSO-C53a (Fuel and Oil system hose assemblies) and TSO-C75 (Hydraulic hose assemblies). Standard lengths are 100 feet; specific cut lengths are available. Standard color is Oxide-Red with black printing. Black sleeve with white printing is available. Other colors available.

**This product is available By-The-Foot / Metre or in standard 100 foot / 30 metre lengths
Larger sizes available in 50 foot / 15 metre lengths**



DIN EN ISO15540 Marine Grade Firesleeve: High Temperature, Heat, Flame & Fire Resistant

500°F / 260°C Continuous Rating - 800°F / 426°C For Up To 30 Minutes

Marine Grade - Meets DIN EN ISO 15540 / USCG / SOLAS

Silicone Rubber Coated Fiberglass Sleeve



FlameShield™ Marine grade firesleeve allows properly assembled hose assemblies to meet ISO 15540 testing. We also maintain traceability records for customers buying this product. 500°F / 260°C continuous rating and with a 30 minute "Fireproof" 800°F / 426°C rating.

This sleeve is extremely flexible, pliable and conformable. Typically used to protect fuel, oil, hydraulic lines and hoses, as well as critical wiring and cables. Remains flexible to -76°C (-104.8°F).

Firesleeve must be cut slightly longer than the hose or cable it is covering so it covers part of the fitting or connector. The longer the hose or cable, and if tight fitting, or if in use the hose/cable will be curved, then the longer the firesleeve needs to be. Firesleeve that is short will pull back from the fitting when the hose is bent, and if this occurs the hose assembly won't meet the ISO standard. Appropriate clamps must be used over the firesleeve at the fitting for aviation and Marine applications. (See our clamps and tools)

This sleeve has a radial elasticity of approximately 15% allowing it to slide over connectors, fittings and splices.

S-ISO15540 also meets the following standards: UL 1441 VW-1, EN 45545, NF F 16-101, BS 6853, NF X 10-702, NF X 70 100 & NF X 70 200, BS EN ISO 11925, BS EN ISO 4589-2, BS EN 60695-2-11, ASTM D 2863 OI, DD CEN/TS 45545-2, ASTM G85 Type 2.

**500°F / 260°C continuous rating, 800°F / 426°C for periods up to 30 minutes
2200°F / 1205°C for periods up to 15 minutes and short excursions to 3000°F / 1650°C.**

FlameShield™ DIN EN ISO15540 Marine Grade Firesleeve									
Nominal ID Inches / mm / Dash #			Part Number	Price per Foot / Metre	Nominal ID Inches / mm / Dash #			Part Number	Price per Foot / Metre
1/4	6	-04	S-ISO15540-M006-04-X	\$ 3.54 / \$ 11.61	1 7/8	48	-30	S-ISO15540-M048-30-X	\$ 14.99 / \$ 49.17
3/8	10	-06	S-ISO15540-M010-06-X	\$ 3.86 / \$ 12.66	2	51	-32	S-ISO15540-M051-32-X	\$ 17.85 / \$ 58.55
7/16	11	-07	S-ISO15540-M011-07-X	\$ 4.36 / \$ 14.30	2 1/4	57	-36	S-ISO15540-M057-36	\$ 20.54 / \$ 67.37
1/2	13	-08	S-ISO15540-M013-08-X	\$ 4.62 / \$ 15.15	2 1/2	64	-40	S-ISO15540-M064-40	\$ 23.21 / \$ 76.13
9/16	15	-09	S-ISO15540-M015-09-X	\$ 4.88 / \$ 16.01	2 5/8	67	-42	S-ISO15540-M067-42	\$ 26.26 / \$ 86.13
5/8	16	-10	S-ISO15540-M016-10-X	\$ 5.13 / \$ 16.83	2 3/4	70	-44	S-ISO15540-M070-44	\$ 26.89 / \$ 88.20
3/4	19	-12	S-ISO15540-M019-12-X	\$ 5.87 / \$ 19.25	2 7/8	73	-46	S-ISO15540-M073-46	\$ 30.56 / \$ 100.24
7/8	22	-14	S-ISO15540-M022-14-X	\$ 6.96 / \$ 22.83	3	76	-48	S-ISO15540-M076-48	\$ 32.39 / \$ 106.24
1	25	-16	S-ISO15540-M025-16-X	\$ 7.90 / \$ 25.91	3 1/4	83	-52	S-ISO15540-M083-52	\$ 32.91 / \$ 107.95
1 1/8	29	-18	S-ISO15540-M029-18-X	\$ 8.93 / \$ 29.29	3 1/2	89	-56	S-ISO15540-M089-56	\$ 35.13 / \$ 115.23
1 1/4	32	-20	S-ISO15540-M032-20-X	\$ 9.55 / \$ 31.32	3 3/4	95	-60	S-ISO15540-M095-60	\$ 35.89 / \$ 117.72
1 3/8	35	-22	S-ISO15540-M035-22-X	\$ 9.63 / \$ 31.59	4	102	-64	S-ISO15540-M102-64	\$ 37.21 / \$ 122.05
1 1/2	38	-24	S-ISO15540-M038-24-X	\$ 9.90 / \$ 32.47	4 1/2	114	-72	S-ISO15540-M114-72	\$ 42.72 / \$ 140.12
1 5/8	41	-26	S-ISO15540-M041-26-X	\$ 10.05 / \$ 32.96	5	127	-80	S-ISO15540-M127-80	\$ 46.83 / \$ 153.60
1 3/4	44	-28	S-ISO15540-M044-28-X	\$ 12.85 / \$ 42.15					

For the "-X" value above in the part number, use "-OR" for Oxide-Red or "-BK" for Black

ISO15540 Marine grade firesleeve is fabricated from a dense E-type braided sleeve and then receives a thick coating of self-extinguishing silicone rubber that withstands flame exposure, allowing qualified hose assemblies to meet DIN EN ISO 15560 for fuel and lubricating oil marine systems.

Standard lengths are 100 feet; specific cut lengths are available. Standard color is Oxide-Red in all sizes and Black is available in sizes -04 through -32. Nominal wall thickness is 0.16".

**This product is available By-The-Foot / Metre or in standard 100 foot / 30 metre lengths
Larger sizes available in 50 foot / 15 metre lengths**

FlameShield™ Firesleeve Technical Data For Part Numbers S-FS / S-FSHD / S-AS1072 / S-ISO15540

Base Fiberglass Substrate – All Versions

Fiber Type:	E Glass
Specific Gravity:	2.54-2.69
Breaking Tenacity:	1.71 gf/TEX. Std. 1.71 gf/TEX Wet
Tensile Strength:	450,000-500,000 psi.
Breaking Elongation:	4.81% Std. 4.81% Wet
Elastic Recovery:	100%
Average Stiffness:	2824.3 cn/TEX

Effect of Heat: Will not burn; Retains 75% tensile at 343°C; Softens at 732-877°C; Melts at 1121-1182°C.
Effect of Acids and Alkalis; Resistance to acids is fair. Good resistance to most alkalis.
Effect of Bleaches and Solvents: Unaffected.

Silicone Rubber Coating – All Versions

Durometer, Shore A:	Initial; 35	Aged 240 hours @ 200°C; 45
Tensile Strength (psi):	Initial; 875	Aged 240 hours @ 200°C; 800
Elongation %:	Initial; 500	Aged 240 hours @ 200°C; 200
Flammability, UL94; V-1		
Dielectric Strength (volts/mil); 485		

Elasticity

S-FSHD: Linear elasticity of approximately 2% and a radial elasticity of approximately 15%.
S-FS: Linear elasticity of approximately 2% and a radial elasticity of approximately 2%.

S-FSHD / S-AS1072 / S-ISO15540 sleeve meeting SAE AS1072 & DIN EN ISO15540 Specifications; Additional Data

Coating Thickness

AS1072 Specification: Minimum: .03" (0.8mm)

Fluid Resistance

Phosphate Ester hydraulic fluids	MIL-H-5606 hydraulic fluid
MIL-T-5624 Jet Fuel	MIL-L-6082 lubricating oil
MIL-L-7808 lubricating oil	MIL-L-23699 lubricating oil
MIL-H-83282 hydraulic fluid	

UL 1441 VW-1, EN 45545, NF F 16-101, BS 6853, NF X 10-702, NF X 70 100 & NF X 70 200, BS EN ISO 11925, BS EN ISO 4589-2, BS EN 60695-2-11, ASTM D 2863 OI, DD CEN/TS 45545-2, ASTM G85 Type 2.

Printed/Marked Sleeve Options

FlameShield™ SAE AS1072 firesleeve is available unmarked but package labelled with the SAE nomenclature, or with SAE standard marking. Sleeve can also be printed/marked with other identification, part numbers, instructions, warnings, etc. Non standard SAE marking cost of an etched print wheel is \$275.00. A setup charge of \$75.00 per print run applies. Cost of printing is \$0.25 per foot. Standard SAE marking is \$0.20 per foot.





End Dip & End Seal Paste for Firesleeve Sealing

High Temperature & Heat Resistant Sealant For Industrial, Heavy Duty, Aerospace, Marine Grade Firesleeve



SleeveSeal™

End Seal Dip – Liquid Silicone Rubber
End Seal Paste – Silicone Rubber RTV

The ends of firesleeve can be sealed against the absorption of liquids by dipping the end in this liquid silicone rubber end dip sealant or by using end seal paste.

Available in any color: Oxide-Red and Black are the most common (other colors 1 gallon minimum).

Becomes tack free in 60 to 90 minutes and cures fully in 16 to 24 hours*. Cure can be accelerated by increasing relative humidity and also adding heat.

500°F / 260°C rating once cured. Non-hazardous to ship. Liquid End Seal Dip may be thinned with odourless mineral spirits (xylene). Non corrosive and meets Mil-A-46146 as per NAVAIR 01-1A-20.

The 4 oz mini container opening can accommodate sleeve up to 1 3/4" ID.

The 16 oz container opening can accommodate sleeve up to 3 1/4" ID.

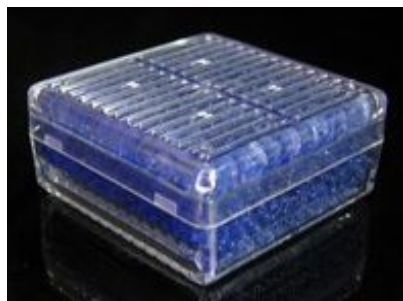
A Low VOC version is available: Maximum VOC is 20g/L.

SleeveSeal™ High Temperature Liquid End Seal Dip and End Seal Paste		
Quantity	Part Number	Price
Liquid End Seal Dip		
4 oz	US-ESD-04-XX	\$ 21.76
16 oz (Pint)	US-ESD-16-XX	\$ 46.47
32 oz (Quart)	US-ESD-32-XX	\$ 87.20
128 oz (1 gallon)	US-ESD-128-XX	\$ 229.32
128 oz (1 gallon)	US-ESD-LV-128-XX*	\$ 281.08
640 oz (5 gallon)	US-ESD-640-XX	\$ 988.40
End Seal Paste		
3 oz tube	US-ESP-03-XX	\$ 19.83
10.3 oz cartridge	US-ESP-10-XX	\$ 38.47
Desiccant Box		
1.5oz Desiccant in Box	AB-SGD-1	\$ 12.87

XX = "OR" for oxide-red or "BK" for black. Other colors are available for the Dip: min quantity is 1 gallon.

* = Low VOC version.

Desiccant Box



Desiccant box can be placed with uncured SleeveSeal™ Dip container in a sealed container or bag to considerably extend shelf life. Can be re-generated for unlimited re-use.

Perforated plastic box is approx 2 1/4" x 2 1/4" x 1". Total weight is 2.3oz (67g). Can be recharged at low temperature in an oven or microwave. Dry desiccant is blue in color and changes to pink as it absorbs moisture.

Firesleeve End Wrap Tape / High Temperature Electrical Tape 500°F/260°C
Silicone Rubber Self Fusing / Self Binding / Self Amalgamating Compression Tape



FlameShield™ end wrap & electrical amalgamating compression tape is a unique adhesive-free tape which self-fuses / self-bonds within 24 hours or less at room temperature or shorter time at elevated temperatures when wrapped over itself, providing an excellent water-tight and air-tight seal.

Tape is adhesive free; leaves no residue when removed. Typically used to protect the free ends of firesleeve from wicking liquids once installed on hoses or cables. Also used for electrical wire and cable splice protection and protection of wires at connector shell clamp band locations. Exceptional electrical insulation resistance in a single wrap.

Tested to:

- ASTM D 149; tested for minimum 400 V/mil. for .010" to .030" thick tape, 300 V/mil for .040" thick tape and 250 V/mil for .060" thick tape.
- ASTM D 412; tested for minimum 700 psi tensile strength and minimum 300% elongation.
- ASTM D 2240; Durometer (Shore A); 55. Other test data available.

Using triangular profile tapes results in a smooth surface contour when spiral wrapped. The most common tapes are 1" wide triangular profile with either a 0.020" or 0.040" center thickness. Meets Mil-I-46852C & A-A-59163 specifications. Triangular tapes have a center guideline to aid in properly spacing the tape when spiral wrapping. T-SR-SA25 tape meets MIL-I-22444 and provides uniform thickness even on sharp corners and edges.

Tape part numbers ending in "BK" are Black color; "OR" are Oxide-Red color. Other colors are available by custom run.

FlameShield™ High Temperature Silicone Self Fusing Firesleeve End Wrap Tape				
Meets MIL-I-46852 / A-A-59163 / ABS 5334 Specifications - Type I and Type II				
Part Number	Tape Width Inches / mm	Thickness inches / mm	Color / Type / Profile	Single Roll Price Per Roll
T-SR-M013-08-RBK-20	1/2 / 12.7	0.020 / 0.508	Black / I / Rectangular	\$ 29.37
T-SR-M013-08-RXX-30	1/2 / 12.7	0.030 / 0.760	Black or Red / I / Rectangular	\$ 37.16
T-SR-M016-10-RBK-20	5/8 / 15.7	0.020 / 0.508	Black / I / Rectangular	\$ 30.17
T-SR-M019-12-ROR-10	3/4 / 19	0.010 / 0.254	Oxide-Red / I / Rectangular	\$ 23.85
T-SR-M019-12-RBK-20	3/4 / 19	0.020 / 0.508	Black / I / Rectangular	\$ 31.96
T-SR-M025-16-TXX-20	1 / 25.4	0.020 / 0.508	Black or Red / II / Triangular	\$ 33.80
T-SR-M025-16-RXX-20	1 / 25.4	0.020 / 0.508	Black or Red / I / Rectangular	\$ 34.71
T-SR-M025-16-TXX-40	1 / 25.4	0.040 / 1.000	Black or Red / II / Triangular	\$ 37.91
T-SR-M025-16-RXX-40	1 / 25.4	0.040 / 1.000	Black or Red / I / Rectangular	\$ 39.64
T-SR-M038-24-RXX-20	1 1/2 / 38.1	0.020 / 0.508	Black or Red / I / Rectangular	\$ 48.77
T-SR-M038-24-RXX-12	1 1/2 / 38.1	0.012 / 0.304	Black or Red / I / Rectangular	\$ 38.47
T-SR-M051-32-RXX-20	2 / 50.8	0.020 / 0.508	Black or Red / I / Rectangular	\$ 57.13
T-SR-M051-32-TXX-20	2 / 50.8	0.020 / 0.508	Black or Red / II / Triangular	\$ 48.86
Triangular Type II Tapes Only: .020" has a blue guideline / .040" has a green guideline				

Supported Tape with Limited Elongation				
Meets MIL-I-22444 (also meets MIL-I-46852 / A-A-59163 / ABS 5334 Specifications)				
Part Number	Tape Width Inches / mm	Thickness inches / mm	Color / Type / Profile	Single Roll Price Per Roll
T-SR-SA25-16-20-RBK*	1 / 25.4	0.020 / 0.508	Black / I / Rectangular	\$ 67.29
T-SR-SA25-16-20-ROR*	1 / 25.4	0.020 / 0.508	Red / I / Rectangular	\$ 67.29

* NOTE: T-SR-SA25-16-20-RBK & T-SR-SA25-16-20-ROR tape has an encapsulated sinusoidal weave fiberglass reinforcement layer, limiting stretch of the tape to a maximum of 25%, ensuring that the tape thickness remains constant over irregular surfaces and edges.

A Certificate of Conformity is available at \$6.00 per roll or \$25.00 per line item / batch-lot. Test report is available at \$75.00 per line item. This tape is also available meeting several other OEM and National Stock Number / NATO Stock Number specifications (available under military cage code is L8347).

These tapes are guaranteed to meet specification for 1 year from date of manufacture providing tapes are stored dry at 21°C +/- 3°C or 70°F +/- 5°F. Standard tapes have an interleaved liner of polyethylene (Mylar®). Polyester liner available.

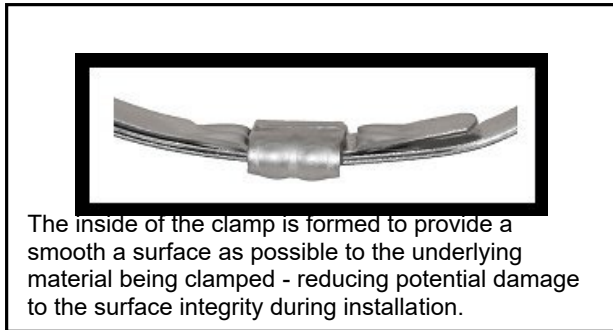
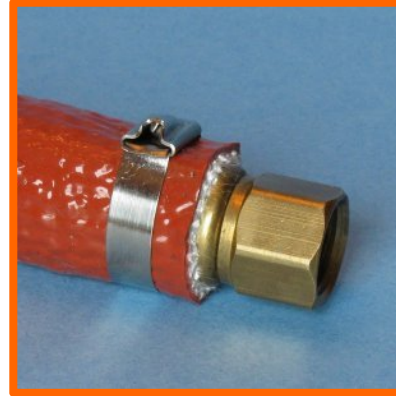


Firesleeve Stainless Steel Preformed Twice Around Clamps

Type 201 Stainless Steel - 1/4" / 6.4mm wide



Preformed Stainless Steel Twice-Around clamps are the strongest clamps available for firesleeve or hose assembly. Use our Firesleeve Clamp Tool for closing and locking these clamps. Clamp widths available are 0.25", 0.375", 0.5", 0.625" and 0.75" wide. 0.25" wide clamps are type 201 stainless steel.



The inside of the clamp is formed to provide a smooth a surface as possible to the underlying material being clamped - reducing potential damage to the surface integrity during installation.

Free-end or twice-around clamps are used to secure firesleeve over hoses at the fitting. Twice-around clamps offer better tensile strength than free end clamps and provide superior clamping of hydraulic hoses onto fittings.

FlameShield™ Type 201 Stainless Steel Preformed Twice Around Clamps 1/4" / 0.25" / 6.35mm wide - .020"/.51mm thick		
Part Number	Max Sleeve or Hose OD Inches / mm	Price Each
C-TA-250-13-201SS	13/16 / 20	\$ 2.84
C-TA-250-16-201SS	1 / 25	\$ 2.96
C-TA-250-22-201SS	1 3/8 / 34	\$ 3.12
C-TA-250-24-201SS	1 1/2 / 38	\$ 3.27
C-TA-250-32-201SS	2 / 51	\$ 3.48
C-TA-250-40-201SS	2 1/2 / 63	\$ 3.84
C-TA-250-44-201SS	2 3/4 / 70	\$ 4.01
C-TA-250-48-201SS	3 / 76	\$ 4.08
C-TA-250-56-201SS	3 1/2 / 88	\$ 4.40
C-TA-250-64-201SS	4 / 101	\$ 5.32
C-TA-250-72-201SS	4 1/2 / 114	\$ 6.28

Full box quantity is 100 clamps. Discount for full box purchase is 35%
 Half-box quantity is 50 clamps. Discount for half-box purchase is 25%

FlameShield™ Type 201 / 316 Stainless Steel / Galvanized Carbon Steel Preformed Twice Around Clamps 3/8" / 0.375" / 9.6mm wide - .025"/.64mm thick		
Part Number	Max Sleeve or Hose OD Inches / mm	Price Each 201 / 316 / Galv
C-TA-375-13-X	13/16 / 20	\$ 2.46 / \$ 6.93 / \$ 0.93
C-TA-375-16-X	1 / 25	\$ 2.83 / N/A / \$ 1.00
C-TA-375-22-X	1 3/8 / 34	\$ 2.76 / \$ 7.60 / \$ 1.03
C-TA-375-32-X	2 / 51	\$ 3.13 / \$ 9.00 / \$ 1.30
C-TA-375-40-X	2 1/2 / 63	\$ 3.56 / \$ 10.26 / \$ 1.90
C-TA-375-48-X	3 / 76	\$ 4.00 / N/A / \$ 1.67
C-TA-375-56-X	3 1/2 / 88	\$ 4.93 / \$ 12.60 / \$ 2.40
C-TA-375-64-X	4 / 101	\$ 4.73 / \$ 14.03 / \$ 2.63

For the "X" value, substitute:

- "201SS" for 201 Stainless Steel
- "316SS" for 316 Stainless Steel
- "GAL" for Galvanized Carbon Steel

Full box quantity is 100 clamps. Discount for full box purchase is 35%
 Half-box quantity is 50 clamps. Discount for half-box purchase is 25%

FlameShield™ Type 201 / 316 Stainless Steel / Galvanized Carbon Steel Preformed Twice Around Clamps 1/2" / 0.5" / 12.7mm wide - .030"/.76mm thick		
Part Number	Max Sleeve or Hose OD Inches / mm	Price Each 201 / 316 / Galv
C-TA-500-16-X	1 / 25	\$ 3.43 / \$ 10.47 / \$ 1.33
C-TA-500-20-X	1 1/4 / 31	\$ 3.77 / \$ 11.43 / \$ 1.47
C-TA-500-24-X	1 1/2 / 38	\$ 4.33 / N/A / \$ 1.63
C-TA-500-28-X	1 3/4 / 44	\$ 4.93 / N/A / \$ 1.93
C-TA-500-32-X	2 / 51	\$ 5.16 / \$ 15.80 / \$ 2.00
C-TA-500-40-X	2 1/2 / 63	\$ 5.43 / \$ 16.87 / \$ 2.10
C-TA-500-44-X	2 3/4 / 69	\$ 5.70 / N/A / \$ 2.30
C-TA-500-48-X	3 / 76	\$ 6.30 / \$ 19.23 / \$ 2.53
C-TA-500-56-X	3 1/2 / 88	\$ 6.90 / \$ 21.20 / \$ 2.87
C-TA-500-64-X	4 / 101	\$ 7.53 / \$ 23.00 / \$ 3.23

For the "X" value, substitute:

- "201" for 201 Stainless Steel
- "316" for 316 Stainless Steel
- "GAL" for Galvanized Carbon Steel

Full box quantity is 100 clamps. Discount for full box purchase is 35%
 Half-box quantity is 50 clamps. Discount for half-box purchase is 25%

FlameShield™ Type 201 / 316 Stainless Steel / Galvanized Carbon Steel Preformed Twice Around Clamps 5/8" / 0.625" / 15.9mm wide - .030"/.76mm thick		
Part Number	Max Sleeve or Hose OD Inches / mm	Price Each 201 / 316 / Galv
C-TA-625-24-X	1 1/2 / 38	\$ 5.44 / \$ 16.56 / \$ 2.04
C-TA-625-28-X	1 3/4 / 38	\$ 6.04 / \$ 18.60 / \$ 2.28
C-TA-625-32-X	2 / 51	\$ 6.60 / \$ 20.40 / \$ 2.48
C-TA-625-36-X	2 1/4 / 57	\$ 7.04 / \$ 21.76 / \$ 2.64
C-TA-625-40-X	2 1/2 / 63	\$ 7.48 / \$ CALL / \$ 2.88

For the "X" value, substitute:

"201" for 201 Stainless Steel

"316" for 316 Stainless Steel

"GAL" for Galvanized Carbon Steel

Full box quantity is 100 clamps. Discount for full box purchase is 35%
 Half-box quantity is 50 clamps. Discount for half-box purchase is 25%

FlameShield™ Type 201 / 316 Stainless Steel / Galvanized Carbon Steel Preformed Twice Around Clamps 3/4" / 0.75" / 19.1mm wide - .030"/.76mm thick		
Part Number	Max Sleeve or Hose OD Inches / mm	Price Each 201 / 316 / Galv
C-TA-750-32-X	2 / 51	\$ 8.16 / \$ 25.60 / \$ 3.04
C-TA-750-44-X	2 3/4 / 69	\$ 8.88 / \$ 29.64 / \$ 3.44
C-TA-750-48-X	3 / 76	\$ 9.64 / \$ 30.96 / \$ 3.60
C-TA-750-56-X	3 1/2 / 88	\$ 10.24 / \$ 33.68 / \$ 3.92
C-TA-750-64-X	4 / 101	\$ 11.76 / \$ 36.32 / \$ 4.52
C-TA-750-72-X	4 1/2 / 114	\$ 12.64 / \$ 39.00 / \$ 4.76
C-TA-750-80-X	5 / 127	\$ 13.64 / \$ 41.68 / \$ 5.90
C-TA-750-84-X	5 1/4 / 133	\$ 14.16 / \$ 43.56 / \$ 6.10
C-TA-750-96-X	6 / 152	\$ 15.68 / \$ 48.16 / \$ 6.40
C-TA-750-100-X	6 1/4 / 165	\$ 17.28 / \$ N/A / \$ 6.56
C-TA-750-112-X	7 / 177	\$ CALL / \$ N/A / \$ 7.12
C-TA-750-128-X	8 / 203	\$ 21.28 / \$ N/A / \$ 10.08

For the "X" value, substitute:

"201" for 201 Stainless Steel

"316" for 316 Stainless Steel

"GAL" for Galvanized Carbon Steel

Full box quantity is 100 clamps. Discount for full box purchase is 35%
 Half-box quantity is 50 clamps. Discount for half-box purchase is 25%

Firesleeve Stainless Steel Clamps Free End Clamps & Clamp Tool



Clamps – Stainless Steel; Free End; Self Locking

These stainless steel clamps are self locking and can be closed with common hand tools such as standard or needle nose pliers. A tighter clamping can be achieved with the Firesleeve Clamp Tools.

Clamps are available in two widths: .181" (tensile 96 lbs) and .311" (tensile 242 lbs). Clamps longer than 20" are available – call for details. Available in 304 and 316 Stainless Steel.

Free End Clamps – .18" / 5mm wide - 304/316 Stainless Steel – Self Locking					
Part Number	Max Sleeve ID Inches / mm	Clamp width inches / mm	Length inch / mm	Price 100 Bag 304 / 316	Price Each 304 / 316
C-SSSL-3XX-W181-L06-X	7/16 / 11	0.181 / 5.0	6" / 152	\$ 121.00 / \$ 139.00	\$ 1.82 / \$ 2.09
C-SSSL-3XX-W181-L08-X	1 1/8 / 28	0.181 / 5.0	8" / 203	\$ 139.00 / \$ 160.00	\$ 2.09 / \$ 2.40
C-SSSL-3XX-W181-L14-X	3 / 76	0.181 / 5.0	14" / 355	\$ 159.00 / \$ 183.00	\$ 2.39 / \$ 2.75
C-SSSL-3XX-W181-L20-X	5 / 127	0.181 / 5.0	20" / 508	\$ 211.00 / \$ 243.00	\$ 3.17 / \$ 3.65

Free End Clamps – .31" / 8mm wide - 304/316 Stainless Steel – Self Locking					
Part Number	Max Sleeve ID Inches / mm	Clamp width inches / mm	Length inch / mm	Price 100 Bag 304 / 316	Price Each 304 / 316
C-SSSL-3XX-W311-L08-X	1 1/8 / 28	0.311 / 8.0	8" / 203	\$ 159.00 / \$ 183.00	\$ 2.39 / \$ 2.75
C-SSSL-3XX-W311-L14-X	3 / 76	0.311 / 8.0	14" / 355	\$ 229.00 / \$ 263.00	\$ 3.44 / \$ 3.95
C-SSSL-3XX-W311-L20-X	5 / 127	0.311 / 8.0	20" / 508	\$ 387.00 / \$ 445.00	\$ 5.80 / \$ 6.68
C-SSSL-PPAP	Level 1 PAPP Certificate – (Per Line Item)			\$ 460.00	

Clamp Tool		
C-FCT-1		\$ 44.61

For the "X" value:
substitute "04" for 304 Stainless Steel or "16" for 316 Stainless Steel



Firesleeve Stainless Steel Clamps
Free End Clamps & Clamp Tool



Firesleeve Clamp Tool

Firesleeve Clamp Tool aids in the tightening of either style of clamp up to 3/8" wide. Built-in handles for the winder and cutter or a standard 1/2" wrench can be used for additional torque on the winder. The tool requires 4.5" of clamp free end for the winder to be properly loaded.

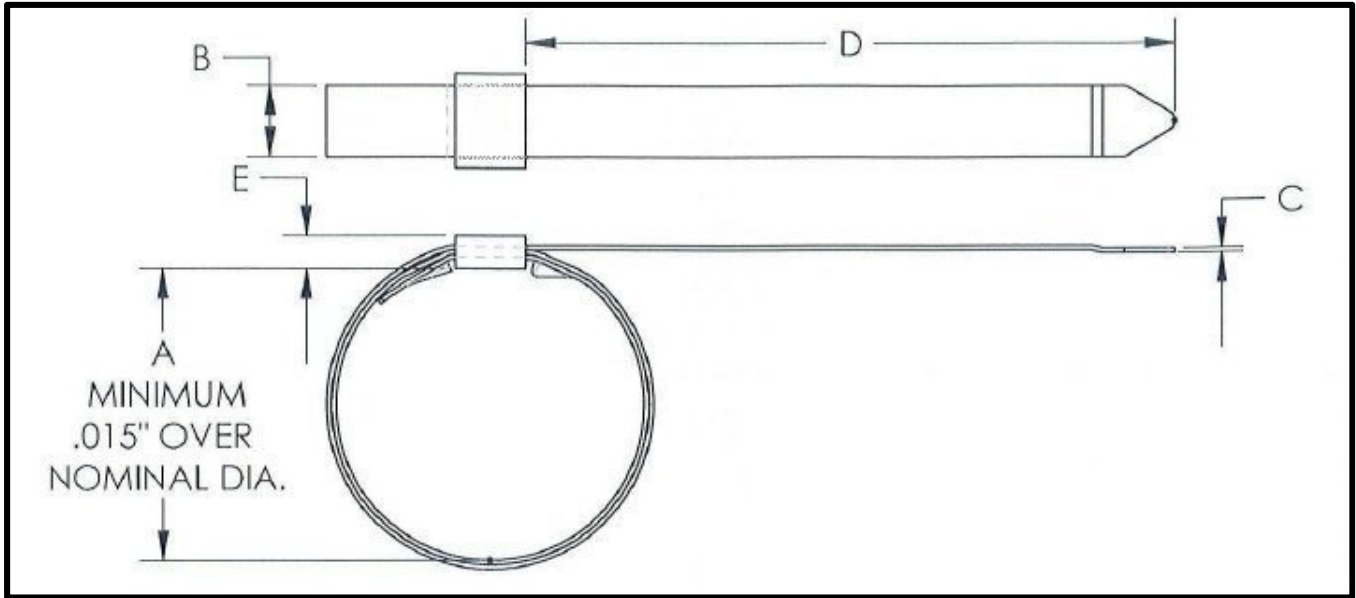
Clamp Tool		
C-FCT-1		\$ 44.61



Using FlameShield™ end wrap compression tape over the clamp makes for a neat and clean installation that prevents contamination of the sleeve end.

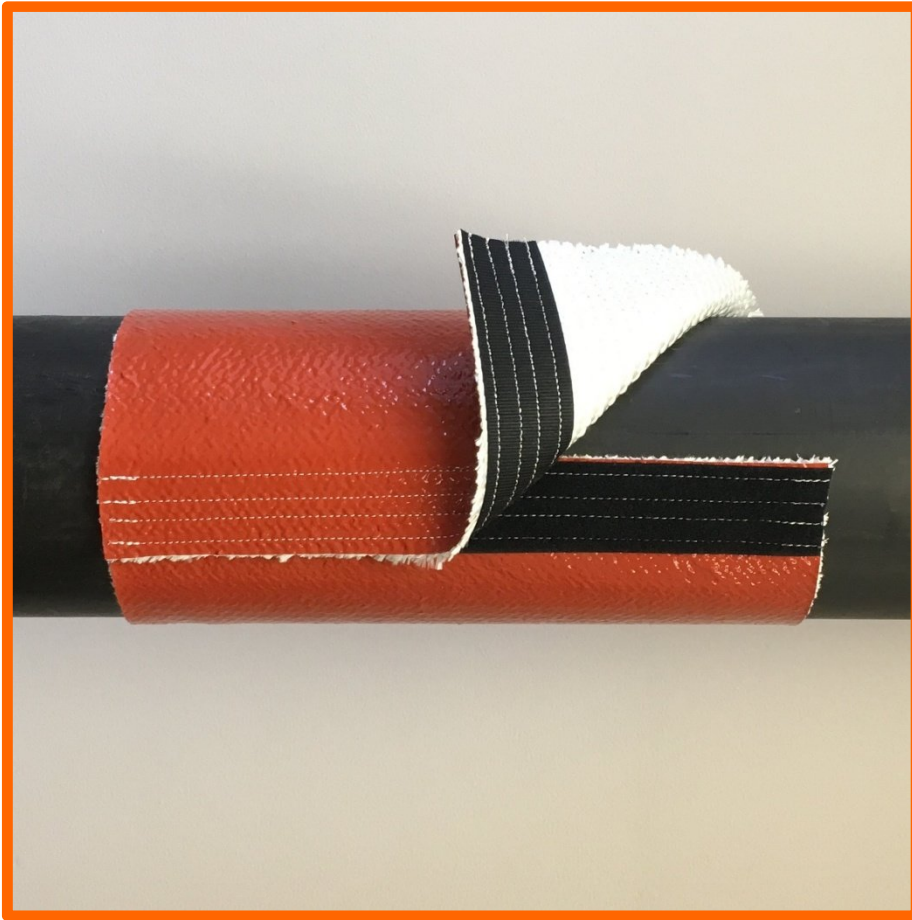
Firesleeve Stainless Steel Preformed Twice Around Clamps – Smooth ID

Dimensional Data



Twice Around Clamp Physical Dimensions and Material Specifications						
Part Number	Material Band / Buckle	Nominal I.D.	Width +/- .005	Thickne ss +/- .002	Tail Length	Buckle Height Max

InsulDynamic™ Firesleeve with VELCRO® Brand Hook & Loop Closure
500°F / 260°C Continuous Rating – Higher Temperature for Shorter Periods
High Temperature, Heat, Flame, Fire, Weld Splatter and Molten Splash & Slag Resistant



InsulDynamic™ Firesleeve with flame retardant hook and loop or VELCRO® Brand closure is a high temperature heavy duty sleeve for protecting industrial hose and cable, but with the benefits of being installed & removed as required without disconnecting the hose, cable or wire.

The sleeve is fabricated from a braided base fabric (similar to our S-FSHD sleeve construction) which provides radial elasticity, easily accommodating connectors and splices.

Typical applications include:

- Electric Arc Furnace cable covers
- Robotic welding cable protection
- Steel mill roll-stand hydraulic hose protection
- Steel mill cooling water hose protection
- Vehicle under-hood wire, cable and hose protection or as a cover in extreme environments where serviceability is required.

The closure remains inside of the sleeve and is protected by the fabric overlap. The thread used is a high temperature e-fiberglass for installation with no or minimal flexing. A Nomex thread is used for installations subject to flexing.

Flame retardant hook & loop is utilized meeting MIL-F-21840, AA-55126, NFPA 1971-1991, FMVSS 302, FAA 25.853a. VELCRO® Brand hook and loop is also available.

This product may be suitable to protect personnel from hot pipe burns and OSHA compliance. Please contact our technical support in order to calculate temperature drop profile in your application.

Also an excellent cold temperature sleeve with flexibility to -76°C for refrigeration and cryogenic applications.

This is a custom fabrication item – please allow 3 to 10 business days from date of order. Contact us to determine the specific production time for your order.

The long edge of the sleeve has some fray of the underlying fiberglass, which does not affect the performance of the sleeve, and is only an aesthetic consideration.

The standard hook and loop and also VELCRO® Brand closure is a nylon material. Nomex® and Stainless Steel is available. For Nomex® add \$7.00 per foot to listed price. For Stainless Steel add \$36.00 per foot to listed price. Sleeve with Nomex® or Stainless Steel closure will have 1" wide closure material. Delivery time for other than standard will be a few additional days. See our catalog page for Nomex® and Stainless Steel closure for temperature ratings and other specifications.

Sizes larger than 5 inches ID contain an overlap seam of the base material opposite the closure location.

InsulDynamic™ Firesleeve with VELCRO® Brand Hook & Loop Closure

500°F / 260°C Continuous Rating – Higher Temperature for Shorter Periods

High Temperature, Heat, Flame, Fire, Weld Splatter and Molten Slag Resistant



**500°F / 260°C continuous rating with weld splatter / molten metal splash protection.
2200°F / 1205°C for periods up to 15 minutes and short excursions to 3000°F / 1650°C.**

InsulDynamic™ Firesleeve with VELCRO® Brand Hook / Loop Closure - Small Diameter						
Nominal ID inches / mm / Dash #			Part Number	Hook & loop Width, inches	Price per Foot	Price per Metre
1/2	13	-08	S-FS-VCL-SM-M013-08	1/2	\$ 14.56	\$ 47.76
3/4	19	-12	S-FS-VCL-SM-M019-12	1/2	\$ 17.34	\$ 56.88
1	25	-16	S-FS-VCL-SM-M025-16	5/8	\$ 20.29	\$ 66.55
1 1/4	32	-20	S-FS-VCL-SM-M032-20	5/8	\$ 22.60	\$ 74.13
1 1/2	38	-24	S-FS-VCL-SM-M038-24	3/4	\$ 24.83	\$ 81.44
1 3/4	44	-28	S-FS-VCL-SM-M044-28	3/4	\$ 26.77	\$ 87.81
2	51	-32	S-FS-VCL-SM-M051-32	3/4	\$ 29.21	\$ 95.81
2 1/4	57	-36	S-FS-VCL-SM-M057-36	3/4	\$ 31.23	\$ 102.43
2 1/2	64	-40	S-FS-VCL-SM-M064-40	3/4	\$ 33.49	\$ 109.85
2 3/4	70	-44	S-FS-VCL-SM-M070-44	3/4	\$ 35.80	\$ 117.42
3	76	-48	S-FS-VCL-SM-M076-48	1	\$ 37.94	\$ 124.44
3 1/4	83	-52	S-FS-VCL-SM-M083-52	1	\$ 40.34	\$ 132.32
3 1/2	89	-56	S-FS-VCL-SM-M089-56	1	\$ 42.29	\$ 138.71
3 3/4	95	-60	S-FS-VCL-SM-M095-60	1	\$ 44.51	\$ 145.99
4	102	-64	S-FS-VCL-SM-M102-64	1	\$ 48.37	\$ 158.65
4 1/4	108	-68	S-FS-VCL-SM-M108-68	1	\$ 50.54	\$ 165.77
4 1/2	114	-72	S-FS-VCL-SM-M114-72	1	\$ 52.94	\$ 173.64
4 3/4	121	-76	S-FS-VCL-SM-M121-76	1	\$ 55.17	\$ 180.96
5	127	-80	S-FS-VCL-SM-M127-80	1	\$ 57.54	\$ 188.73

Available in continuous lengths up to 100 feet for up to 3.5" I.D.

Customer may specify a hook/loop width other than standard if desired (except for 1/2 and 3/4" sleeve).

Continued....

InsulDynamic™ Firesleeve with VELCRO® Brand Hook & Loop Closure (Continued) Large Diameter

Large Diameter Firesleeve with VELCRO® Brand Hook & Loop Closure in sizes larger than 5 inches ID contains an overlap seam of the material opposite the closure location.

500°F / 260°C continuous rating with weld splatter / molten metal splash protection.
2200°F / 1205°C for periods up to 15 minutes and short excursions to 3000°F / 1650°C.

InsulDynamic™ Firesleeve with VELCRO® Brand Hook & Loop Closure: Large Diameter						
Nominal ID inches / mm / Dash #			Part Number	Hook/Loop Width, inches	Price per Foot	Price per Metre
5 1/4	133	-84	S-FS-VCL-LG-M133-84	2	\$ 59.37	\$ 194.73
5 1/2	140	-88	S-FS-VCL-LG-M140-88	2	\$ 61.66	\$ 202.25
5 3/4	146	-92	S-FS-VCL-LG-M146-92	2	\$ 63.94	\$ 209.72
6	152	-96	S-FS-VCL-LG-M152-96	2	\$ 66.11	\$ 216.84
6 1/4	159	-100	S-FS-VCL-LG-M159-100	2	\$ 68.51	\$ 224.71
6 1/2	165	-104	S-FS-VCL-LG-M165-104	2	\$ 70.74	\$ 232.03
6 3/4	171	-108	S-FS-VCL-LG-M171-108	2	\$ 72.74	\$ 238.59
7	178	-112	S-FS-VCL-LG-M178-112	2	\$ 74.97	\$ 245.90
7 1/4	184	-116	S-FS-VCL-LG-M184-116	2	\$ 76.97	\$ 252.46
7 1/2	191	-120	S-FS-VCL-LG-M191-120	2	\$ 79.54	\$ 260.89
7 3/4	197	-124	S-FS-VCL-LG-M197-124	2	\$ 81.77	\$ 268.21
8	203	-128	S-FS-VCL-LG-M203-128	2	\$ 83.69	\$ 274.50
8 1/4	210	-132	S-FS-VCL-LG-M210-132	2	\$ 86.26	\$ 282.93
8 1/2	216	-136	S-FS-VCL-LG-M216-136	2	\$ 88.43	\$ 290.05
8 3/4	222	-140	S-FS-VCL-LG-M222-140	2	\$ 90.23	\$ 295.95
9	229	-144	S-FS-VCL-LG-M229-144	2	\$ 92.57	\$ 303.63
9 1/4	235	-148	S-FS-VCL-LG-M235-148	2	\$ 94.49	\$ 309.93
9 1/2	241	-152	S-FS-VCL-LG-M241-152	2	\$ 97.20	\$ 318.82
9 3/4	248	-156	S-FS-VCL-LG-M248-156	2	\$ 99.37	\$ 325.93
10	254	-160	S-FS-VCL-LG-M254-160	2	\$ 101.66	\$ 333.45
10 1/4	260	-164	S-FS-VCL-LG-M260-164	2	\$ 104.00	\$ 341.12
10 1/2	267	-168	S-FS-VCL-LG-M267-168	2	\$ 105.60	\$ 346.37
10 3/4	273	-172	S-FS-VCL-LG-M273-172	2	\$ 113.31	\$ 371.66
11	279	-176	S-FS-VCL-LG-M279-176	2	\$ 115.66	\$ 379.36
11 1/4	286	-180	S-FS-VCL-LG-M286-180	2	\$ 118.51	\$ 388.71
11 1/2	292	-184	S-FS-VCL-LG-M292-184	2	\$ 122.37	\$ 401.37
11 3/4	298	-188	S-FS-VCL-LG-M298-188	2	\$ 126.22	\$ 414.01
12	305	-192	S-FS-VCL-LG-M305-192	1.5	\$ 129.41	\$ 424.46

Available in continuous lengths up to 100 feet. Larger Diameters available by quote.

The standard closure is nylon. Nomex® and Stainless Steel is available. For Nomex® add \$7.00 per foot to listed price and for Stainless Steel add \$36.00 per foot to listed price for 1" wide closure. For Nomex® add \$14.00 per foot to listed price and for Stainless Steel add \$72.00 per foot to listed price for 2" wide closure (2" wide is constructed by using 2 x 1" wide). Delivery time for other than standard will be a few additional days. See our catalog page for Nomex® and Stainless Steel closure for temperature ratings and other specifications.



SplashGard™ HD Sleeve with VELCRO® Brand Hook & Loop Closure

500°F / 260°C Continuous Rating – Higher Temperature for Shorter Periods
High Temperature, Heat, Flame, Fire, Weld Splatter and Molten Splash & Slag Resistant



SplashGard™ HD sleeve is a high temperature sleeve with a flame retardant hook and loop or VELCRO® Brand hook and loop closure that is suitable to protect hoses and cables from molten splash.

It may be installed and removed without disconnecting the hose, cable or wire. The sleeve is fabricated from a heavy duty woven fabric which is then coated with a thick layer of self extinguishing silicone rubber elastomer.

Due to the woven base material and deep elastomer impregnation, this material is stiff and provides no elasticity compared to our standard duty version. This sleeve should be slightly oversized if it will require flexing or installation on curved installations. It is designed for straight or slightly curved sections or runs of hose, pipe or cables, and is difficult to use in a curved path.

Typical applications include protection of Electric Arc Furnace cables, robotic welding cables, steel mill roll-stand hydraulic hoses, steel mill cooling water hoses, vehicle under-hood wiring, cable and hoses. The same material is also used to fabricate custom protection covers for enclosures and equipment protection where serviceability is required.

The closure remains inside of the sleeve and is protected by the fabric overlap. Thread used is a high temperature e-fiberglass. Flame retardant hook & loop is utilized meeting MIL-F-21840, AA-55126, NFPA 1971-1991, FMVSS 302, FAA 25.853a.

This product may be suitable to protect personnel from hot pipe burns and OSHA compliance. Please contact our technical support in order to calculate temperature drop profile in your application.

Also an excellent cold temperature sleeve with flexibility to -76°C for refrigeration and cryogenic applications.

This is a custom fabrication item – please allow 3 to 10 business days from date of order. Contact us to determine the specific production time for your order.

The long edge of the sleeve has some fray of the underlying fiberglass, which does not affect the performance of the sleeve, and is only an aesthetic consideration.

The standard closure is nylon. Nomex® and Stainless Steel is available. For Nomex® add \$7.00 per foot to listed price. For Stainless Steel add \$36.00 per foot to listed price. Sleeve with Nomex® or Stainless Steel closure will have 1" wide closure material. Delivery time for other than standard will be a few additional days. See our catalog page for Nomex® and Stainless Steel closure for temperature ratings and other specifications.

SplashGard™ HD Sleeve with VELCRO® Brand Hook & Loop Closure

500°F / 260°C Continuous Rating – Higher Temperature for Shorter Periods

High Temperature, Heat, Flame, Fire, Weld Splatter and Molten Slag Resistant



500°F / 260°C continuous rating with weld splatter / molten metal splash protection.
2200°F / 1205°C for periods up to 15 minutes and short excursions to 3000°F / 1650°C.

**SplashGard™ HD Sleeve with VELCRO® Brand Hook / Loop Closure
Small Diameter**

Nominal ID inches / mm / Dash #			Part Number	Hook & loop Width, inches	Price per Foot	Price per Metre
1 1/2	38	-24	S-FGSRHD-VCL-M038-24	3/4	\$ 24.83	\$ 81.44
1 3/4	44	-28	S-FGSRHD-VCL-M044-28	3/4	\$ 26.77	\$ 87.81
2	51	-32	S-FGSRHD-VCL-M051-32	3/4	\$ 29.21	\$ 95.81
2 1/4	57	-36	S-FGSRHD-VCL-M057-36	3/4	\$ 31.23	\$ 102.43
2 1/2	64	-40	S-FGSRHD-VCL-M064-40	3/4	\$ 33.49	\$ 109.85
2 3/4	70	-44	S-FGSRHD-VCL-M070-44	3/4	\$ 35.80	\$ 117.42
3	76	-48	S-FGSRHD-VCL-M076-48	1	\$ 37.94	\$ 124.44
3 1/4	83	-52	S-FGSRHD-VCL-M083-52	1	\$ 40.34	\$ 132.32
3 1/2	89	-56	S-FGSRHD-VCL-M089-56	1	\$ 42.29	\$ 138.71
3 3/4	95	-60	S-FGSRHD-VCL-M095-60	1	\$ 44.51	\$ 145.99
4	102	-64	S-FGSRHD-VCL-M102-64	1	\$ 48.37	\$ 158.65
4 1/4	108	-68	S-FGSRHD-VCL-M108-68	1	\$ 50.54	\$ 165.77
4 1/2	114	-72	S-FGSRHD-VCL-M114-72	1	\$ 52.94	\$ 173.64
4 3/4	121	-76	S-FGSRHD-VCL-M121-76	1	\$ 55.17	\$ 180.96
5	127	-80	S-FGSRHD-VCL-M127-80	1	\$ 57.54	\$ 188.73

Available in continuous lengths up to 100 feet for up to 3.5" I.D.

Customer may specify a hook/loop width other than standard if desired (except for 1/2 and 3/4" sleeve).

Continued...

SplashGard™ HD Sleeve with VELCRO® Brand Hook & Loop Closure (Continued)
Large Diameter

Large Diameter Firesleeve with VELCRO® Brand Hook & Loop Closure in sizes larger than 5 inches ID contains an overlap seam of the material opposite the closure.

500°F / 260°C continuous rating with weld splatter / molten metal splash protection.
 2200°F / 1205°C for periods up to 15 minutes and short excursions to 3000°F / 1650°C.

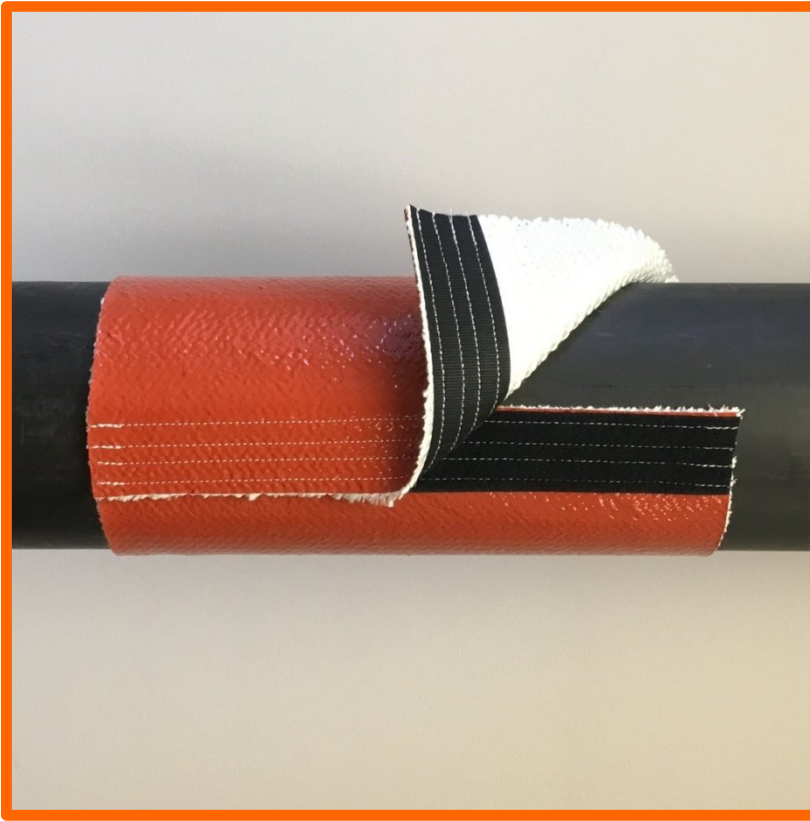
SplashGard™ HD Sleeve with VELCRO® Brand Hook & Loop Closure: Large Diameter						
Nominal ID inches / mm / Dash #			Part Number	Hook/Loop Width, inches	Price per Foot	Price per Metre
5 1/4	133	-84	S-FGSRHD-VCL-M133-84	2	\$ 59.37	\$ 194.73
5 1/2	140	-88	S-FGSRHD-VCL-M140-88	2	\$ 61.66	\$ 202.25
5 3/4	146	-92	S-FGSRHD-VCL-M146-92	2	\$ 63.94	\$ 209.72
6	152	-96	S-FGSRHD-VCL-M152-96	2	\$ 66.11	\$ 216.84
6 1/4	159	-100	S-FGSRHD-VCL-M159-100	2	\$ 68.51	\$ 224.71
6 1/2	165	-104	S-FGSRHD-VCL-M165-104	2	\$ 70.74	\$ 232.03
6 3/4	171	-108	S-FGSRHD-VCL-M171-108	2	\$ 72.74	\$ 238.59
7	178	-112	S-FGSRHD-VCL-M178-112	2	\$ 74.97	\$ 245.90
7 1/4	184	-116	S-FGSRHD-VCL-M184-116	2	\$ 76.97	\$ 252.46
7 1/2	191	-120	S-FGSRHD-VCL-M191-120	2	\$ 79.54	\$ 260.89
7 3/4	197	-124	S-FGSRHD-VCL-M197-124	2	\$ 81.77	\$ 268.21
8	203	-128	S-FGSRHD-VCL-M203-128	2	\$ 83.69	\$ 274.50
8 1/4	210	-132	S-FGSRHD-VCL-M210-132	2	\$ 86.26	\$ 282.93
8 1/2	216	-136	S-FGSRHD-VCL-M216-136	2	\$ 88.43	\$ 290.05
8 3/4	222	-140	S-FGSRHD-VCL-M222-140	2	\$ 90.23	\$ 295.95
9	229	-144	S-FGSRHD-VCL-M229-144	2	\$ 92.57	\$ 303.63
9 1/4	235	-148	S-FGSRHD-VCL-M235-148	2	\$ 94.49	\$ 309.93
9 1/2	241	-152	S-FGSRHD-VCL-M241-152	2	\$ 97.20	\$ 318.82
9 3/4	248	-156	S-FGSRHD-VCL-M248-156	2	\$ 99.37	\$ 325.93
10	254	-160	S-FGSRHD-VCL-M254-160	2	\$ 101.66	\$ 333.45
10 1/4	260	-164	S-FGSRHD-VCL-M260-164	2	\$ 104.00	\$ 341.12
10 1/2	267	-168	S-FGSRHD-VCL-M267-168	2	\$ 105.60	\$ 346.37
10 3/4	273	-172	S-FGSRHD-VCL-M273-172	2	\$ 113.31	\$ 371.66
11	279	-176	S-FGSRHD-VCL-M279-176	2	\$ 115.66	\$ 379.36
11 1/4	286	-180	S-FGSRHD-VCL-M286-180	2	\$ 118.51	\$ 388.71
11 1/2	292	-184	S-FGSRHD-VCL-M292-184	2	\$ 122.37	\$ 401.37
11 3/4	298	-188	S-FGSRHD-VCL-M298-188	2	\$ 126.22	\$ 414.01
12	305	-192	S-FGSRHD-VCL-M305-192	1.5	\$ 129.41	\$ 424.46

Available in continuous lengths up to 100 feet. Larger Diameters available by quote.

The standard closure is nylon. Nomex® and Stainless Steel is available. For Nomex® add \$7.00 per foot to listed price and for Stainless Steel add \$36.00 per foot to listed price for 1" wide closure. For Nomex® add \$14.00 per foot to listed price and for Stainless Steel add \$72.00 per foot to listed price for 2" wide closure (2" wide is constructed by using 2 x 1" wide). Delivery time for other than standard will be a few additional days. See our catalog page for Nomex® and Stainless Steel closure for temperature ratings and other specifications.

Aviation Firesleeve with FR Hook & Loop Closure

500°F / 260°C Continuous Rating – Higher Temperature for Shorter Periods
High Temperature, Heat, Flame & Fire Resistant



ZeusGard™ Firesleeve is a high temperature sleeve with YKK brand flame retardant hook and loop or VELCRO® Brand closure. SAE AS1072 firesleeve is used for construction of this retrofit sleeve which can be installed without disconnecting hoses, cables or wiring.

Typical applications are to protect fluid carrying hoses, cables and wires that are exposed to high temperatures or for additional protection in the event of fire. No guarantee is made as to the fire exposure time that this sleeve provides as it is modified from the AS1072 specification. Critical system components should be protected with standard AS1072 firesleeve without hook & loop closure.

The closure remains protected inside of the sleeve and is protected by the fabric overlap. The thread used is a high temperature e-fiberglass. Other threads such as stainless steel are available. The standard nylon hook and loop closure is flame retardant and meets MIL-F-21840, AA-55126, NFPA 1971-1991, FMVSS 302, FAA 25.853a.

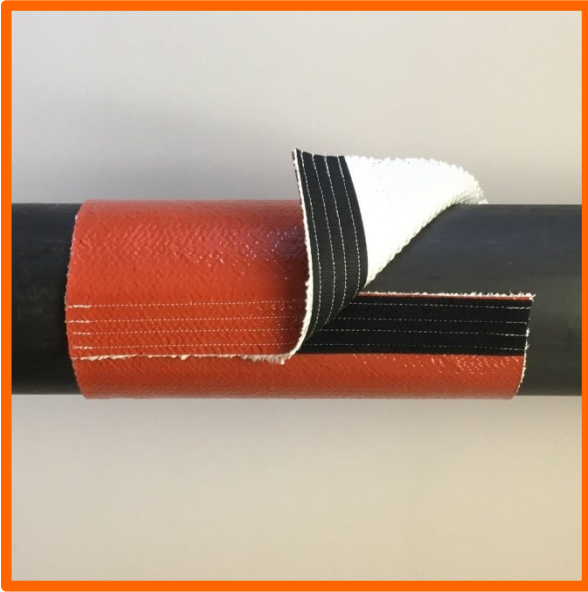
To aid in keeping the firesleeve closed in the event of exposure to higher than rated temperatures or in the event of flame exposure, this sleeve should be further secured with metal band clamps spaced at regular intervals.

This is a custom fabrication item – please allow 2 to 5 business days from date of order. Contact us to determine the specific production time for your order.

The long edge of the sleeve has some fray of the underlying fiberglass, which does not affect the performance of the sleeve, and is only an aesthetic consideration.

The standard closure is nylon hook & loop. Nomex® and Stainless Steel is available. For Nomex® add \$7.00 per foot. For Stainless Steel add \$36.00 per foot. Sleeve with Nomex® or Stainless Steel closure will have 1" wide closure material. Delivery time for other than standard will be a few additional days. See our catalog page for Nomex® and Stainless Steel closures for temperature ratings and other specifications.

Aviation Firesleeve with FR Hook & Loop Closure (Continued)
500°F / 260°C Continuous Rating – Higher Temperature for Shorter Periods
High Temperature, Heat, Flame & Fire Resistant



500°F / 260°C continuous rating.
2200°F / 1205°C for periods up to 15 minutes and short excursions to 3000°F / 1650°C.

ZeusGard™ Aviation Firesleeve with Hook & Loop Closure						
Nominal ID inches / mm / Dash #			Part Number	Hook & loop Width, inches	Price per Foot	Price per Metre
1/2	13	-08	S-FS-VCL-AERO-M013-08	1/2	\$ 17.56	\$ 57.60
3/4	19	-12	S-FS-VCL-AERO-M019-12	1/2	\$ 20.34	\$ 66.72
1	25	-16	S-FS-VCL-AERO-M025-16	5/8	\$ 23.29	\$ 76.39
1 1/4	32	-20	S-FS-VCL-AERO-M032-20	5/8	\$ 25.60	\$ 83.97
1 1/2	38	-24	S-FS-VCL-AERO-M038-24	3/4	\$ 27.83	\$ 91.28
1 3/4	44	-28	S-FS-VCL-AERO-M044-28	3/4	\$ 29.77	\$ 97.65
2	51	-32	S-FS-VCL-AERO-M051-32	3/4	\$ 32.21	\$ 105.65
2 1/4	57	-36	S-FS-VCL-AERO-M057-36	3/4	\$ 34.23	\$ 112.27
2 1/2	64	-40	S-FS-VCL-AERO-M064-40	3/4	\$ 37.49	\$ 122.97
2 3/4	70	-44	S-FS-VCL-AERO-M070-44	3/4	\$ 38.80	\$ 127.26
3	76	-48	S-FS-VCL-AERO-M076-48	1	\$ 40.94	\$ 134.28
3 1/4	83	-52	S-FS-VCL-AERO-M083-52	1	\$ 43.34	\$ 142.16
3 1/2	89	-56	S-FS-VCL-AERO-M089-56	1	\$ 45.29	\$ 148.55
3 3/4	95	-60	S-FS-VCL-AERO-M095-60	1	\$ 47.21	\$ 154.85
4	102	-64	S-FS-VCL-AERO-M102-64	1	\$ 48.37	\$ 158.65
4 1/4	108	-68	S-FS-VCL-AERO-M108-68	1	\$ 50.54	\$ 165.77
4 1/2	114	-72	S-FS-VCL-AERO-M114-72	1	\$ 52.94	\$ 173.64
4 3/4	121	-76	S-FS-VCL-AERO-M121-76	1	\$ 55.17	\$ 180.96
5	127	-80	S-FS-VCL-AERO-M127-80	1	\$ 57.54	\$ 188.73

Available in continuous lengths up to 100 feet.
Larger ID (Inside Diameter) Sizes Available - Please Ask



Firesleeve with Metal Snap Closure

500°F / 260°C Continuous Rating – Higher Temperature for Shorter Periods

High Temperature, Heat, Flame & Fire Resistant

Removable silicone rubber coated fiberglass sleeve with snap closure provides heavy duty weld splatter & molten splash protection



SnapSleeve™ Firesleeve is a heavy duty silicone rubber coated fibreglass sleeve with snap style closures protects industrial wire, cable and hose with the benefits of being installed & removed as required. Typical applications are as robotic welding cable protection, steel mill roll-stand hydraulic hose protection or as a cover in extreme environments where serviceability is required. This is a custom fabrication item – please allow 3 to 10 business days from date of order. Available in continuous lengths up to 100 feet for IDs up to 3 1/2” and 75 feet for IDs larger than 3 3/4”. Standard snap spacing is 3” but can be adjusted to the customer’s preference.

Also an excellent cold temperature sleeve with flexibility to -76°C for refrigeration and cryogenic applications.

**500°F / 260°C continuous rating with weld splatter / molten metal splash protection.
2200°F / 1205°C for periods up to 15 minutes and short excursions to 3000°F / 1650°C.**

SnapSleeve™ Firesleeve with Metal Snap Closure					
Heavy Duty Removable Molten Splash Protection Sleeve					
Nominal ID inches / mm / Dash #			Part Number	Price Per Foot	Price Per Metre
1	25	-16	S-FS-SNAP-M025-16	\$ 20.29	\$ 66.55
1 1/4	32	-20	S-FS-SNAP-M032-20	\$ 22.60	\$ 74.13
1 1/2	38	-24	S-FS-SNAP-M038-24	\$ 24.83	\$ 81.44
1 3/4	44	-28	S-FS-SNAP-M044-28	\$ 26.77	\$ 87.81
2	51	-32	S-FS-SNAP-M051-32	\$ 29.00	\$ 95.12
2 1/4	57	-36	S-FS-SNAP-M057-36	\$ 31.23	\$ 102.43
2 1/2	64	-40	S-FS-SNAP-M064-40	\$ 33.49	\$ 109.85
2 3/4	70	-44	S-FS-SNAP-M070-44	\$ 35.80	\$ 117.42
3	76	-48	S-FS-SNAP-M076-48	\$ 37.94	\$ 124.44
3 1/4	83	-52	S-FS-SNAP-M083-52	\$ 40.34	\$ 132.32
3 1/2	89	-56	S-FS-SNAP-M089-56	\$ 42.29	\$ 138.71

This Product is Available By-The-Foot / Metre. Larger IDs Available

Firesleeve with Metal Snap Closure (Continued)

Large Diameter



SnapSleeve™ Firesleeve with Metal Snap Closure					
Heavy Duty Removable Molten Splash Protection Sleeve					
Nominal ID inches / mm / Dash #			Part Number	Price Per Foot	Price Per Metre
3 3/4	95	-60	S-FS-SNAP-M095-60	\$ 44.51	\$ 145.99
4	102	-64	S-FS-SNAP-M102-64	\$ 48.37	\$ 158.65
4 1/4	108	-68	S-FS-SNAP-M108-68	\$ 50.54	\$ 165.77
4 1/2	114	-72	S-FS-SNAP-M114-72	\$ 52.94	\$ 173.64
4 3/4	121	-76	S-FS-SNAP-M121-76	\$ 55.17	\$ 180.96
5	127	-80	S-FS-SNAP-M127-80	\$ 57.54	\$ 188.73
5 1/4	133	-84	S-FS-SNAP-M133-84	\$ 59.37	\$ 194.73
5 1/2	140	-88	S-FS-SNAP-M140-88	\$ 61.66	\$ 202.25
5 3/4	146	-92	S-FS-SNAP-M146-92	\$ 63.94	\$ 209.72
6	152	-96	S-FS-SNAP-M152-96	\$ 66.11	\$ 216.84
6 1/4	159	-100	S-FS-SNAP-M159-100	\$ 68.51	\$ 224.71
6 1/2	165	-104	S-FS-SNAP-M165-104	\$ 70.74	\$ 232.03
6 3/4	171	-108	S-FS-SNAP-M171-108	\$ 72.74	\$ 238.59
7	178	-112	S-FS-SNAP-M178-112	\$ 74.97	\$ 245.90
7 1/4	184	-116	S-FS-SNAP-M184-116	\$ 76.97	\$ 252.46
7 1/2	191	-120	S-FS-SNAP-M191-120	\$ 79.54	\$ 260.89
7 3/4	197	-124	S-FS-SNAP-M197-124	\$ 81.77	\$ 268.21
8	203	-128	S-FS-SNAP-M203-128	\$ 83.69	\$ 274.50
8 1/4	210	-132	S-FS-SNAP-M210-132	\$ 86.26	\$ 282.93
8 1/2	216	-136	S-FS-SNAP-M216-136	\$ 88.43	\$ 290.05
8 3/4	222	-140	S-FS-SNAP-M222-140	\$ 90.23	\$ 295.95
9	229	-144	S-FS-SNAP-M229-144	\$ 92.57	\$ 303.63

This Product is Available By-The-Foot / Metre. Larger IDs Available

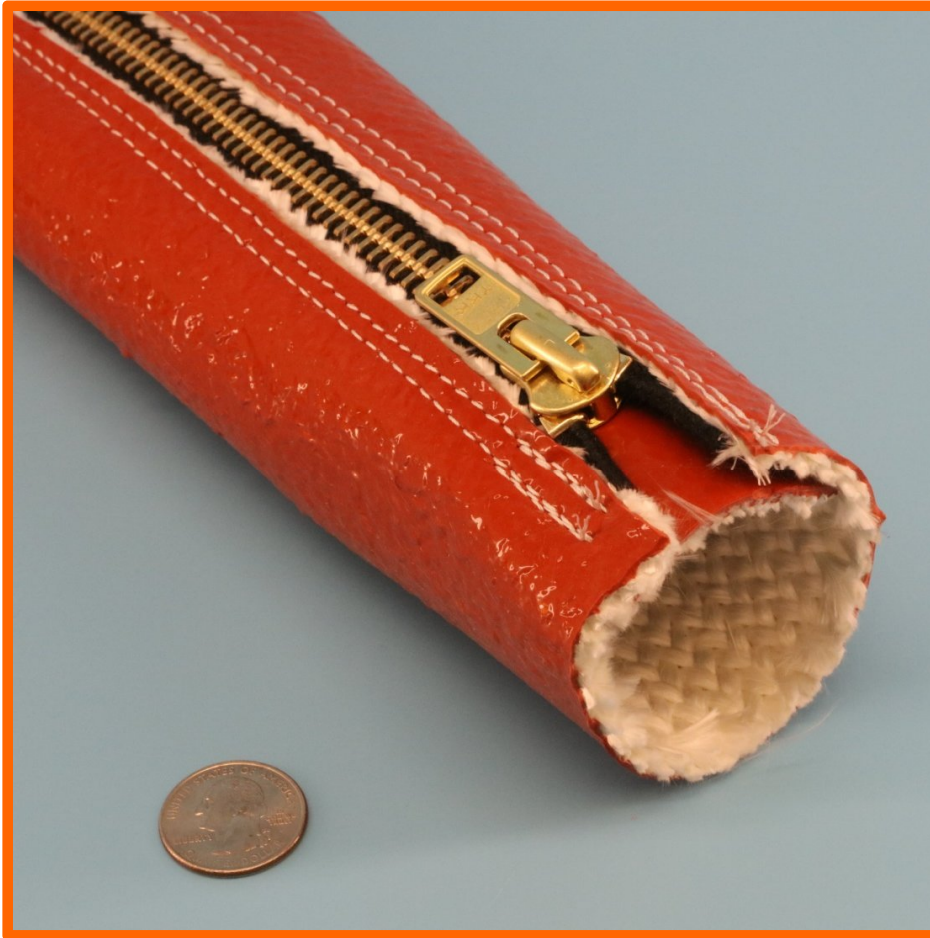


Firesleeve with Metallic Zipper Closure - ZipSleeve™

500°F / 260°C Continuous Rating – Higher Temperature for Shorter Periods

High Temperature, Heat, Flame & Fire Resistant Firesleeve

Removable silicone rubber coated fiberglass sleeve with metal zipper provides heavy duty weld splatter & molten splash protection that is removable and retrofit.



This heavy duty silicone rubber coated fiberglass sleeve with high temperature zipper closures protects industrial wire, cable and hose with the benefits of being installed & removed as required.

Typical applications are as robotic welding cable protection, steel mill roll-stand hydraulic hose protection or as a cover in extreme environments where serviceability is required.

The zipper is made from high temperature Nomex® fabric and metal teeth. This is a custom fabrication – please allow 3 to 10 business days from date of order.

Available in continuous lengths up to 100 feet. 500°F / 260°C continuous rating with weld splatter / molten metal splash protection

Also an excellent cold temperature sleeve with flexibility to -76°C for refrigeration and cryogenic applications.

The sleeve has a special flap under the zipper to ensure the full protection of the cable or hose underneath.

For critical applications, metal clamps can be used to secure the sleeve in case of zipper failure due to a concentrated or prolonged heat or flame event.

Custom ZipSleeve™ can also be fabricated with a flap covering the zipper - sewn on one side and with a hook and loop closure on the other side of the flap.

**500°F / 260°C continuous rating with weld splatter / molten metal splash protection.
2200°F / 1205°C for periods up to 15 minutes and short excursions to 3000°F / 1650°C.**

Firesleeve with Metallic Zipper Closure (Continued)
500°F / 260°C Continuous Rating – Higher Temperature for Shorter Periods
High Temperature, Heat, Flame & Fire Resistant Firesleeve



ZipSleeve™ Firesleeve					
Heavy Duty Removable Molten Splash Protection Sleeve					
Nominal ID inches / mm / Dash #			Part Number	Price Per Foot	Price Per Metre
1	25	-16	S-FS-ZC-M025-16	\$ 20.29	\$ 66.55
1 1/4	32	-20	S-FS-ZC-M032-20	\$ 22.60	\$ 74.13
1 1/2	38	-24	S-FS-ZC-M038-24	\$ 24.83	\$ 81.44
1 3/4	44	-28	S-FS-ZC-M044-28	\$ 26.77	\$ 87.81
2	51	-32	S-FS-ZC-M051-32	\$ 29.00	\$ 95.12
2 1/4	57	-36	S-FS-ZC-M057-36	\$ 31.23	\$ 102.43
2 1/2	64	-40	S-FS-ZC-M064-40	\$ 33.49	\$ 109.85
2 3/4	70	-44	S-FS-ZC-M070-44	\$ 35.80	\$ 117.42
3	76	-48	S-FS-ZC-M076-48	\$ 37.94	\$ 124.44
3 1/4	83	-52	S-FS-ZC-M083-52	\$ 40.34	\$ 132.32
3 1/2	89	-56	S-FS-ZC-M089-56	\$ 42.29	\$ 138.71
3 3/4	95	-60	S-FS-ZC-M095-60	\$ 44.51	\$ 145.99
4	102	-64	S-FS-ZC-M102-64	\$ 48.37	\$ 158.65
4 1/4	108	-68	S-FS-ZC-M108-68	\$ 50.54	\$ 165.77
4 1/2	114	-72	S-FS-ZC-M114-72	\$ 52.94	\$ 173.64
4 3/4	121	-76	S-FS-ZC-M121-76	\$ 55.17	\$ 180.96
5	127	-80	S-FS-ZC-M127-80	\$ 57.54	\$ 188.73
5 1/4	133	-84	S-FS-ZC-M133-84	\$ 59.37	\$ 194.73
5 1/2	140	-88	S-FS-ZC-M140-88	\$ 61.66	\$ 202.25
5 3/4	146	-92	S-FS-ZC-M146-92	\$ 63.94	\$ 209.72
6	152	-96	S-FS-ZC-M152-96	\$ 66.11	\$ 216.84
6 1/4	159	-100	S-FS-ZC-M159-100	\$ 68.51	\$ 224.71
6 1/2	165	-104	S-FS-ZC-M165-104	\$ 70.74	\$ 232.03
6 3/4	171	-108	S-FS-ZC-M171-108	\$ 72.74	\$ 238.59
7	178	-112	S-FS-ZC-M178-112	\$ 74.97	\$ 245.90
7 1/4	184	-116	S-FS-ZC-M184-116	\$ 76.97	\$ 252.46
7 1/2	191	-120	S-FS-ZC-M191-120	\$ 79.54	\$ 260.89
7 3/4	197	-124	S-FS-ZC-M197-124	\$ 81.77	\$ 268.21
8	203	-128	S-FS-ZC-M203-128	\$ 83.69	\$ 274.50
8 1/4	210	-132	S-FS-ZC-M210-132	\$ 86.26	\$ 282.93
8 1/2	216	-136	S-FS-ZC-M216-136	\$ 88.43	\$ 290.05
8 3/4	222	-140	S-FS-ZC-M222-140	\$ 90.23	\$ 295.95
9	229	-144	S-FS-ZC-M229-144	\$ 92.57	\$ 303.63

This Product is Available By-The-Foot / Metre



Small Diameter Firesleeve for Wiring, Cable and Tubing Protection

464°F / 240°C Continuous Rating – Higher Temperature for Shorter Periods
High Temperature, Heat & Flame Resistant

Silicone Rubber Coated Fiberglass Sleeve with UL/CSA rating & NEMA TF-1



FlameShield™ small diameter firesleeve is designed as a primary insulation sleeve for protecting small diameter wire, cable, lines, hose, and pipe from high temperature, flame and environmental contamination. Recognized by UL / CSA for 240°C, 600V service, and complies with VW-1 flammability requirements. Conforms to, and is listed on the QPL for MIL-I-3190/9 (Grade A).

Extremely flexible and easily installed. Used in electrical apparatus as a primary or secondary wiring insulation.

The inner braid is very fine and dense, and along with the precision silicone rubber coating, this is the most flexible sleeve we have available for wire, cable and hose protection.

Due to the tight weave of this sleeve and the coating, it has negligible radial elasticity.

The coating of this sleeve provides excellent contamination resistance against oil, liquid splash, etc.

464°F / 240°C continuous rating with weld splatter / molten metal splash protection

Small Diameter Firesleeve for Wiring, Cable and Tubing Protection (Continued)

464°F / 240°C Continuous Rating – Higher Temperature for Shorter Periods

High Temperature, Heat & Flame Resistant

Available in all standard AWG wire sizes (see end of section): Available Colors are Oxide-Red and Black

<u>Property</u>	<u>Procedure</u>	<u>Performance</u>
<i>Physical</i>		
Tensile Strength, Coating	ASTM-D412	1600 psi
Ultimate Elongation, Coating	ASTM-D412	800% @ 20°C
Hardness, Coating	ASTM-D2240	54 (Durometer, Shore A)
Flexibility & Toughness, Coating	UL 1441	Passes Penetration Test
<i>Chemical</i>		
Oil & Solvent Resistance	MIL-I-3190/9	Passes
Water Vapour Resistance	MIL-I-3190/9	Passes
Resistance to Acids and Alkalis	-	Excellent
Resistance to Weathering	-	Unaffected by sunlight and weather
Compatibility	UL 1446	Good. Compatible with most potting compounds and varnishes
<i>Electrical</i>		
Dielectric Strength:		
after 48/23/50, Grade A	NEMA TF-1	8000V min avg., 6000v min individual
after 96/23/96, Grade A	NEMA TF-1	80% of Original Value
Hydrostatic Stability after 336 hrs @ 70°C over Constant Water Reflex	MIL-I-3190/9	Passes 7660V min avg with no disintegration, reversion or cracks (spec 5000V)
<i>Thermal</i>		
Thermal Endurance	MIL-I-3190/9 & UL 1441	Class 240°C (S)
Brittleness Temperature	ASTM-D350	-80°C
Flame Resistance	UL 1441	Passes (VW-1)
	ASTM-D350, Method A	Passes
	NEMA TF-1	Passes
	MIL-I-3190/9, Method A	Passes
Pushback	MIL-I-3190/9	No cracks or ruptures, 6000V min avg breakdown strength

This product is not stock, it is made to order: Delivery is approximately 10 business days.

Small Diameter Firesleeve (Continued)

High Temperature, Heat & Flame Resistant Small

Silicone Rubber Coated Fiberglass Sleeve

Primary Insulation Silicone Rubber Coated Fiberglass Sleeve for

Wire Protection, with UL/CSA approval rating and NEMA Grade TF-1 classified

**High Temperature - Small Diameter – NEMA Wall Thickness Sleeve
FlameShield™ Silicone Rubber Coated Fiberglass Sleeve with
UL/CSA rating and NEMA Grade TF-1 Classification**

Part Number	Nominal ID				Feet per Spool	Price per Spool
	AWG	Inches	mm	-dash		
S-FS-SD-AWG24-X	24	0.022	0.56		500*	\$ 488.05
S-FS-SD-AWG22-X	22	0.027	0.69		500*	\$ 490.17
S-FS-SD-AWG20-X	20	0.034	0.86		500*	\$ 505.01
S-FS-SD-AWG19-X	19	0.038	0.96		500*	\$ 510.02
S-FS-SD-AWG18-X	18	0.042	1.07		500*	\$ 525.65
S-FS-SD-AWG17-X	17	0.047	1.19		500*	\$ 535.27
S-FS-SD-AWG16-X	16	0.053	1.35		500*	\$ 545.79
S-FS-SD-AWG15-X	15	0.059	1.50		500*	\$ 550.33
S-FS-SD-AWG14-X	14	0.066	1.68	-01	500*	\$ 580.16
S-FS-SD-AWG13-X	13	0.076	1.93		250*	\$ 295.18
S-FS-SD-AWG12-X	12	0.085	2.16		250*	\$ 325.30
S-FS-SD-AWG11-X	11	0.095	2.41		250*	\$ 342.37
S-FS-SD-AWG10-X	10	0.106	2.69		250*	\$ 362.45
S-FS-SD-AWG9-X	9	0.118	3.10		250*	\$ 372.49
S-FS-SD-AWG8-X	8	0.133	3.38	-02	250*	\$ 402.61
S-FS-SD-AWG7-X	7	0.148	3.76		250*	\$ 430.72
S-FS-SD-AWG6-X	6	0.166	4.22		150*	\$ 274.83
S-FS-SD-AWG5-X	5	0.186	4.72	-03	150*	\$ 307.05
S-FS-SD-AWG4-X	4	0.208	5.28		150*	\$ 343.29
S-FS-SD-AWG3-X	3	0.234	5.94		150*	\$ 385.57
S-FS-SD-AWG2-X	2	0.263	6.68	-04	150*	\$ 454.03
S-FS-SD-AWG1-X	1	0.294	7.47		150*	\$ 520.47
S-FS-SD-05-X	5/16	0.313	7.95	-05	150*	\$ 567.78
S-FS-SD-AWG0-X	0	0.330	8.38		150	\$ 610.07
S-FS-SD-06-X	3/8	0.375	9.52	-06	150	\$ 853.69
S-FS-SD-07-X	7/16	0.438	11.12	-07	100	\$ 751.21
S-FS-SD-08-X	1/2	0.500	12.70	-08	100	\$ 877.72
S-FS-SD-10-X	5/8	0.625	15.87	-10	100	\$ 1068.93
S-FS-SD-12-X	3/4	0.750	19.05	-12	100	\$ 1258.32
S-FS-SD-14-X	7/8	0.875	22.22	-14	100	\$ 1534.66
S-FS-SD-16-X	1	1.000	25.40	-16	100	\$ 1874.27
S-FS-SD-18-X	1 1/8	1.125	28.57	-18	100	\$ 2603.51
S-FS-SD-20-X	1 1/4	1.250	31.75	-20	100	\$ 3062.44
S-FS-SD-22-X	1 3/8	1.375	34.92	-22	3**	\$ 33.37 / 3' section
S-FS-SD-23-X	1 7/16	1.437	36.49	-23	3**	\$ 36.88 / 3' section
S-FS-SD-24-X	1 1/2	1.500	38.10	-24	3**	\$ 39.83 / 3' section
S-FS-SD-26-X	1 5/8	1.625	41.27	-26	3**	\$ 42.99 / 3' section
S-FS-SD-28-X	1 3/4	1.750	44.45	-28	3**	\$ 46.46 / 3' section
S-FS-SD-30-X	1 7/8	1.875	47.62	-30	3**	\$ 50.17 / 3' section
S-FS-SD-32-X	2	2.000	50.80	-32	3**	\$ 57.31 / 3' section

See Page 1-43 for a table of pre-coated dimensional specifications for this product

For the "X" value in the part number, specify "B" for Black or "OR" for Oxide-Red Color.

This product is available in full coils only.

This product is not stock, it is made to order: Delivery is approximately 10 business days.

* Longer Spool Lengths Available. ** Minimum order 30 pieces

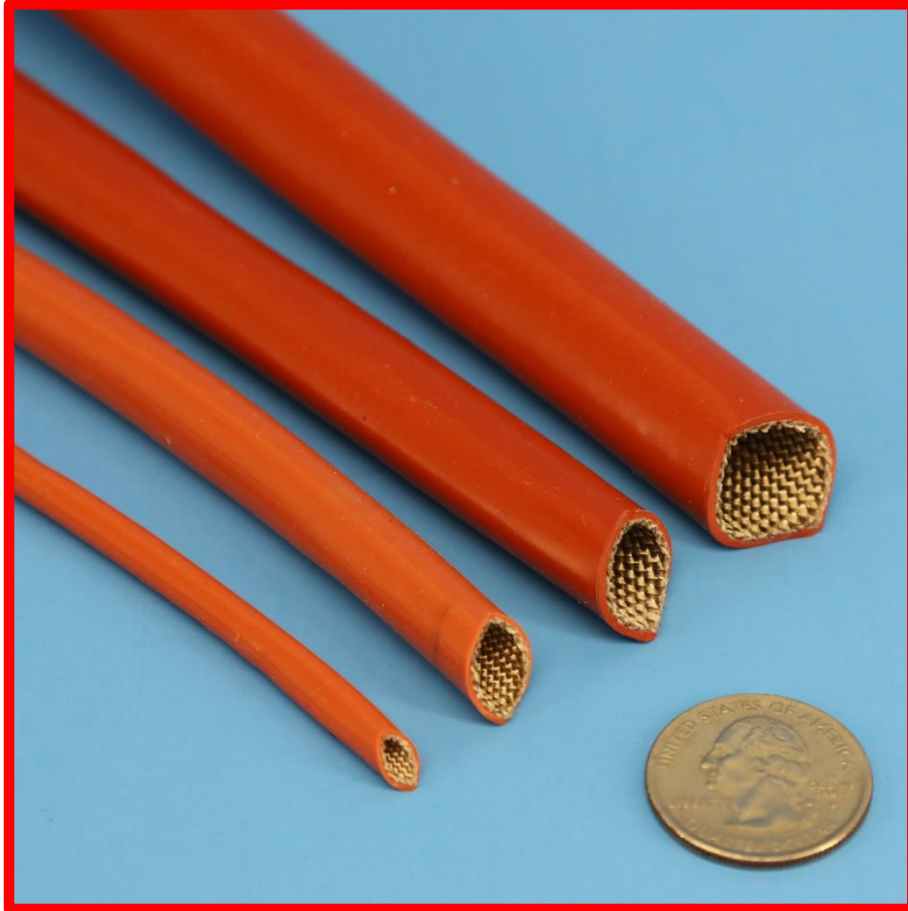


Small Diameter HD Wall Thickness Firesleeve for Wiring, Cable and Tubing Protection

-112 to +464°F / -80 to +240°C Operating Temperature – Higher Temperature for Shorter Periods

High Temperature, Heat & Flame Resistant

Heavy Wall Silicone Rubber Coated Fiberglass Sleeve with UL/CSA approved & NEMA TF-1 grade A



FlameShield™ small diameter firesleeve with Heavy Wall Silicone Rubber coating is designed as a primary insulation sleeve for protecting small diameter wire, cable, lines, hose, and pipe from high temperature, flame and environmental contamination. Recognized by UL / CSA for 240°C, 600V service, and meets VW-1 flammability requirements.

Extremely flexible and easily installed. Used in electrical apparatus as a primary or secondary wiring insulation.

The inner braid is very fine and dense, and along with the precision silicone rubber coating, this is the most flexible sleeve we have available for wire, cable and hose protection.

Due to the tight weave of this sleeve and thick silicone coating, it has negligible radial elasticity.

The coating of this sleeve provides excellent contamination resistance against oil, liquid splash, etc.

392°F / 200°C continuous rating with weld splatter / molten metal splash protection

Small Diameter HD Firesleeve

High Temperature, Heat & Flame Resistant Small

Silicone Rubber Coated Fiberglass Sleeve

Primary Insulation Silicone Rubber Coated Fiberglass Sleeve for

Wire Protection, with UL/CSA approval rating and NEMA Grade TF-1 classified

**High Temperature - Small Diameter – Heavy Wall Thickness Sleeve
FlameShield™ Silicone Rubber Coated Fiberglass Sleeve with
UL/CSA rating and NEMA Grade TF-1 Classification**

Part Number	Nominal ID				Price per Spool
	NEMA AWG Size	Inches	mm	-dash	
S-FS-SD-HDW-AWG24-X	24	0.022	0.56		By Quote
S-FS-SD-HDW-AWG22-X	22	0.027	0.69		By Quote
S-FS-SD-HDW-AWG20-X	20	0.034	0.86		By Quote
S-FS-SD-HDW-AWG19-X	19	0.038	0.96		By Quote
S-FS-SD-HDW-AWG18-X	18	0.042	1.07		By Quote
S-FS-SD-HDW-AWG17-X	17	0.047	1.19		By Quote
S-FS-SD-HDW-AWG16-X	16	0.053	1.35		By Quote
S-FS-SD-HDW-AWG15-X	15	0.059	1.50		By Quote
S-FS-SD-HDW-AWG14-X	14	0.066	1.68	-01	By Quote
S-FS-SD-HDW-AWG13-X	13	0.076	1.93		By Quote
S-FS-SD-HDW-AWG12-X	12	0.085	2.16		By Quote
S-FS-SD-HDW-AWG11-X	11	0.095	2.41		By Quote
S-FS-SD-HDW-AWG10-X	10	0.106	2.69		By Quote
S-FS-SD-HDW-AWG9-X	9	0.118	3.10		By Quote
S-FS-SD-HDW-AWG8-X	8	0.133	3.38	-02	By Quote
S-FS-SD-HDW-AWG7-X	7	0.148	3.76		By Quote
S-FS-SD-HDW-AWG6-X	6	0.166	4.22		By Quote
S-FS-SD-HDW-AWG5-X	5	0.186	4.72	-03	By Quote
S-FS-SD-HDW-AWG4-X	4	0.208	5.28		By Quote
S-FS-SD-HDW-AWG3-X	3	0.234	5.94		By Quote
S-FS-SD-HDW-AWG2-X	2	0.263	6.68	-04	By Quote
S-FS-SD-HDW-AWG1-X	1	0.294	7.47		By Quote
S-FS-SD-HDW-05-X	5/16	0.313	7.95	-05	By Quote
S-FS-SD-HDW-AWG0-X	0	0.330	8.38		By Quote
S-FS-SD-HDW-06-X	3/8	0.375	9.52	-06	By Quote
S-FS-SD-HDW-07-X	7/16	0.438	11.12	-07	By Quote
S-FS-SD-HDW-08-X	1/2	0.500	12.70	-08	By Quote
S-FS-SD-HDW-10-X	5/8	0.625	15.87	-10	By Quote
S-FS-SD-HDW-12-X	3/4	0.750	19.05	-12	By Quote
S-FS-SD-HDW-14-X	7/8	0.875	22.22	-14	By Quote
S-FS-SD-HDW-16-X	1	1.000	25.40	-16	By Quote
S-FS-SD-HDW-18-X	1 1/8	1.125	28.57	-18	By Quote
S-FS-SD-HDW-20-X	1 1/4	1.250	31.75	-20	By Quote
S-FS-SD-HDW-24-X	1 1/2	1.500	38.10	-24	By Quote

See Page 1-43 for a table of pre-coated dimensional specifications for this product

For the "X" value in the part number, specify "B" for Black or "OR" for Oxide-Red Color.

This product is available in full coils only.

This product is not stock, it is made to order: Delivery is approximately 10 business days.



Viton[®] 231 Coated Fiberglass Sleeve: AWG Wire Sized

High Temperature, Heat & Flame Resistant

428°F / 220°C: Continuous Rating – Higher Temperature for Shorter Periods

Cut, Puncture & Abrasion / Wear Resistance

Available meeting NEMA Grade A-1, B-1 & C-1



FlameShield™ Tuff-Flex™ Viton[®] coated sleeve is designed as a primary insulation sleeve for protecting small diameter wire, cable, lines, hose, and pipe from high temperature, flame and environmental contamination. Recognized by UL / CSA for 220°C, 7000V service, and complies with VW-1 flammability requirements. Conforms to, and is listed on the QPL for MIL-I-3190/9. Available in 3 grades: NEMA Grade A-1, B-1 and C-1.

Extremely flexible and easily installed. Used in electrical apparatus as a primary or secondary wiring insulation. Suitable for use in silicone free requirement environments. Resistance to solvents, both aromatic and aliphatic; fuels, including JP-5; and oils, including Skydrol.

The inner fiberglass braid is very fine and dense, and along with the precision Viton[®] 231 coating, this is the toughest cut and abrasion resistant flexible sleeve we have available for wire, cable and hose protection.

428°F / 220°C: Continuous Rating – Higher Temperature for Shorter Periods
Cut, Puncture & Abrasion / Wear Resistance

Viton® 231 Coated Fiberglass Sleeve: AWG Wire Sized
High Temperature, Heat & Flame Resistant (Continued)
428°F / 220°C: Continuous Rating – Higher Temperature for Shorter Periods
Cut, Puncture & Abrasion / Wear Resistance

Available in all standard AWG wire sizes (see end of this section): Available Colors are White, Black and Dark Tan (Natural).

<u>Property</u>	<u>Procedure</u>	<u>Performance</u>
Physical		
Tensile Strength, Coating	ASTM-D412	2000 psi @ 24°C; 600 psa @ 149°C
Ultimate Elongation, Coating	ASTM-D412	150% @ 24°C; 75% @ 149°C
Hardness, Coating	ASTM-D2240	80 (Durometer, Shore A)
Flexibility & Toughness, Coating	UL 1441	Passes Penetration Test
Chemical		
Oil & Solvent* Resistance	MIL-I-3190/9	Passes (excellent)
Water Vapour Resistance	MIL-I-3190/9	Passes (excellent)
Resistance to Acids and Alkalis	-	Excellent
Resistance to Weathering	-	Unaffected by sunlight and weather
Compatibility	UL 1446	Good. Compatible with most potting compounds and varnishes
Electrical		
Dielectric Strength:		
after 48/23/50, Grade A	NEMA TF-1	7000V min avg., 5000v min individual
after 96/23/96, Grade A	NEMA TF-1	80% of Original Value
Hydrostatic Stability after 336 hrs @ 70°C over Constant Water Reflex	MIL-I-3190/9	Passes 6000V min avg with no disintegration, reversion or cracks (spec 5000V)
Thermal		
Thermal Endurance	MIL-I-3190/9 & UL 1441	Class 220°C (R)
Brittleness Temperature	ASTM-D350	-70°C
Flame Resistance	UL 1441	Passes (VW-1)
	ASTM-D350, Method A	Passes
	NEMA TF-1	Passes
	MIL-I-3190/9, Method A	Passes
Pushback	MIL-I-3190/9	No cracks or ruptures, 6000V min avg breakdown strength

This product is not stock, it is made to order: Delivery is approximately 10 business days.

* Do not use Ketone type solvents as a cleaning agent; use V.M. & P. Naphtha.

Viton® 231 Coated Fiberglass Sleeve: AWG Wire Sized (Continued)

428°F / 220°C: High Temperature, Heat & Flame Resistant

Primary Insulation Viton® 231 Coated Fiberglass Sleeve for

Wire Protection, with UL/CSA approval rating and NEMA Grade A-1/B-1/C-1 classified

FlameShield™ High Temperature - Small Diameter – Viton® 231 Coated Fiberglass Sleeve with UL/CSA rating and NEMA Grade A-1 / B-1 / C-1 Classification. High Cut & Abrasion Resistance						
Part Number	Nominal ID AWG / Inches / mm / -dash				Feet per Spool	Price per 100 feet A-1 / B-1 / C-1
S-FG-VI-AWG24-X-Y	24	0.022	0.56		500*	\$ 465.94 / 372.76 / 233.04
S-FG-VI-AWG22-X-Y	22	0.027	0.69		500*	\$ 470.26 / 376.24 / 235.02*
S-FG-VI-AWG20-X-Y	20	0.034	0.86		500*	\$ 603.00 / 482.40 / 301.50
S-FG-VI-AWG19-X-Y	19	0.038	0.96		500*	\$ 607.63 / 486.30 / 303.95
S-FG-VI-AWG18-X-Y	18	0.042	1.07		500*	\$ 618.80 / 495.22 / 309.27
S-FG-VI-AWG17-X-Y	17	0.047	1.19		500*	\$ 649.95 / 520.13 / 324.97
S-FG-VI-AWG16-X-Y	16	0.053	1.35		500*	\$ 670.95 / 537.11 / 335.33
S-FG-VI-AWG15-X-Y	15	0.059	1.50		500*	\$ 680.40 / 544.47 / 340.17
S-FG-VI-AWG14-X-Y	14	0.066	1.68	-01	500*	\$ 702.90 / 562.42 / 351.27
S-FG-VI-AWG13-X-Y	13	0.076	1.93		250*	\$ 716.90 / 573.75 / 358.55
S-FG-VI-AWG12-X-Y	12	0.085	2.16		250*	\$ 747.87 / 598.17 / 374.07
S-FG-VI-AWG11-X-Y	11	0.095	2.41		250*	\$ 784.57 / 627.67 / 392.25
S-FG-VI-AWG10-X-Y	10	0.106	2.69		250*	\$ 827.45 / 662.02 / 413.70
S-FG-VI-AWG9-X-Y	9	0.118	3.10		250*	\$ 874.32 / 699.42 / 437.40
S-FG-VI-AWG8-X-Y	8	0.133	3.38	-02	250*	\$ 930.37 / 744.27 / 465.20
S-FG-VI-AWG7-X-Y	7	0.148	3.76		250*	\$ 948.21 / 758.45 / 474.15
S-FG-VI-AWG6-X-Y	6	0.166	4.22		150*	\$ 981.20 / 785.10 / 490.62
S-FG-VI-AWG5-X-Y	5	0.186	4.72	-03	150*	\$ 1010.90 / 808.77 / 505.62
S-FG-VI-AWG4-X-Y	4	0.208	5.28		150*	\$ 1017.95 / 814.32 / 508.70
S-FG-VI-AWG3-X-Y	3	0.234	5.94		150*	\$ 1065.80 / 852.75 / 532.95
S-FG-VI-AWG2-X-Y	2	0.263	6.68	-04	150*	\$ 1097.75 / 878.17 / 548.85
S-FG-VI-AWG1-X-Y	1	0.294	7.47		150*	\$ 1266.72 / 1013.32 / 633.30
S-FG-VI-05-X-Y	5/16	0.313	7.95	-05	150*	\$ 1436.75 / 1149.22 / 718.35
S-FG-VI-AWG0-X-Y	0	0.330	8.38		150	\$ 1605.07 / 1284.12 / 802.47
S-FG-VI-06-X-Y	3/8	0.375	9.52	-06	150	\$ 1841.02 / 1472.75 / 920.52
S-FG-VI-07-X-Y	7/16	0.438	11.12	-07	100	\$ 2365.92 / 1892.70 / 1183.05
S-FG-VI-08-X-Y	1/2	0.500	12.70	-08	100	\$ 3242.62 / 2593.92 / 1621.20
S-FG-VI-10-X-Y	5/8	0.625	15.87	-10	100	\$ 3943.80 / 3155.10 / 1972.02
S-FG-VI-12-X-Y	3/4	0.750	19.05	-12	100	\$ 4556.25 / 3644.97 / 2278.12
S-FG-VI-14-X-Y	7/8	0.875	22.22	-14	100	\$ 5608.47 / 4486.62 / 2804.30
S-FG-VI-16-X-Y	1	1.000	25.40	-16	100	\$ 6834.82 / 5468.12 / 3417.42
S-FG-VI-18-X-Y	1 1/8	1.125	28.57	-18	100	\$ N/A / 6589.25 / 4118.15
S-FG-VI-20-X-Y	1 1/4	1.250	31.75	-20	100	\$ N/A / 7851.07 / 4906.80
S-FG-VI-22-X-Y	1 3/8	1.375	34.92	-22	3**	\$ N/A. / N/A / 6134.17
S-FG-VI-23-X-Y	1 7/16	1.437	36.49	-23	3**	\$ N/A. / N/A / 6572.31
S-FG-VI-24-X-Y	1 1/2	1.500	38.10	-24	3**	\$ N/A. / N/A / 7010.82
S-FG-VI-26-X-Y	1 5/8	1.625	41.27	-26	3**	\$ N/A. / N/A / 7404.66
S-FG-VI-28-X-Y	1 3/4	1.750	44.45	-28	3**	\$ N/A. / N/A / 7799.31
S-FG-VI-30-X-Y	1 7/8	1.875	47.62	-30	3**	\$ N/A. / N/A / 8412.27
S-FG-VI-32-X-Y	2	2.000	50.80	-32	3**	\$ N/A. / N/A / 8982.45

Quantity Pricing: For 1000 to 4999 feet -10% / For 5000 feet or more -17%
 See end of section 1 for a table of pre-coated dimensional specifications for this product

For the "X" value, specify "A1", "B1" or "C1"
 For the "Y" value in the part number, specify "B" for Black or "W" for White or "N" for Natural (Dark Tan)

This product is available in full coils only.
This product is not generally stock: Delivery is approximately 15 business days.

* Longer Spool Lengths Available. ** Minimum order 30 pieces



High Elasticity Firesleeve

392°F / 200°C: Continuous Rating – Higher Temperature for Shorter Periods

StretchSleeve™ High Temperature, Heat & Flame Resistant Super Stretch

Expandable Sleeve:

Silicone Rubber Coated Expandable Fiberglass Sleeve

with UL/CSA rating & NEMA Grade A



This specially designed sleeve is recommended for sleeving applications, which require a snug fit over irregular shapes.

This sleeve proves a “heat shrink” like fit while still providing flexibility, abrasion resistance, moisture resistance, uv, ozone and chemical resistance.

This sleeve can expand to twice its relaxed diameter.

Electrically rated to +200°C, but can provide higher temperature performance if the electrical properties are not required.

Provides dielectric grade A, NEMA TF-1, Type 5; Mil-I-3190/6 (Grade A).

StretchSleeve™ High Temperature, Heat & Flame Resistant Expandable Silicone Rubber Coated Fiberglass Sleeve

Part Number	Size		I.D. in inches		Spool Size feet	Price per Spool
	AWG	Range	Relaxed	Expanded		
S-FS-HiElas-13-X	#13	#13 - #7	0.076	0.144	250	\$ 69.53
S-FS-HiElas-9-X	#9	#9 - #3	0.118	0.229	250	call
S-FS-HiElas-6-X	#6	#6 - #1	0.166	0.289	250	call
S-FS-HiElas-3-X	#3	#3 - .437"	0.234	0.437	250	call
S-FS-HiElas-0-X	#0	#0 - .625"	0.330	0.625	100	call
S-FS-HiElas-375-X	.375"	.375" - .750"	0.375	0.750	100	\$ 286.95
S-FS-HiElas-500-X	.500"	.500" - 1.00"	0.500	1.000	100	\$ 439.71
S-FS-HiElas-625-X	.625"	.625" - 1.25"	0.625	1.250	100	\$ 536.31

For X: use “WH” for White. Use “BK” for Black

High Elasticity Firesleeve (Continued)

392°F / 200°C: Continuous Rating – Higher Temperature for Shorter Periods

StretchSleeve™ High Temperature, Heat & Flame Resistant Super Stretch Expandable Sleeve:

Silicone Rubber Coated Expandable Fiberglass Sleeve with UL/CSA rating & NEMA Grade A



Coating: 30 durometer, shore A; tensile strength >1000 psi; Elongation > 600%; Tear strength 150 ppi; Available in Black or White.

Electrical

Dielectric Strength:		
after 48/23/50, Grade A	NEMA TF-1	8000V min avg., 6000v min individual
after 96/23/96, Grade A	NEMA TF-1	80% of Original Value
Hydrostatic Stability after 336 hrs @ 70°C over Constant Water Reflex	MIL-I-3190/9	Passes 7660V min avg with no disintegration, reversion or cracks (spec 5000V)
Flame Resistance	NEMA TF-1	Passes
	MIL-I-3190/9, Method A	Passes
Pushback	MIL-I-3190/9	No cracks or ruptures, 6000V min avg breakdown strength

PTFE Coated Fiberglass Braided Sleeve

550°F / 287°C: Continuous Rating – Higher Temperature for Shorter Periods

DeltaGlass™ High Temperature, Heat & Chemical Resistant Sleeve



- Available in 1/16" – 1.59mm & 1/8" - 3.18mm wall thickness
- PTFE coating

Excellent resistance to almost all solvents, caustics and acids.

The base yarn is rated to 1200°F / 648°C. The PTFE coating melting point is 620°F / 327°C.

550°F / 287°C continuous rating, high insulation value & excellent personnel protection

This sleeve is an excellent choice for applications requiring a PTFE seal at high temperatures, as the sleeve's fiberglass base material supports the PTFE and reduces creep of the PTFE at high temperatures.

PTFE Coated Fiberglass Braided Sleeve (Continued)

550°F / 287°C: Continuous Rating – Higher Temperature for Shorter Periods

DeltaGlass™ High Temperature, Heat & Chemical Resistant Sleeve



**PTFE Coated Fiberglass Braided Sleeve
High-Temperature, Heat & Chemical Resistance**

Part Number	Size in / mm / -dash#			Feet per Spool Thin Wall / Thick Wall	Price / foot Thin wall	Price / foot Thick wall
S-FG-PTFE-M006-04-X	.250	6	-04	1400 / 700	\$ 1.68	\$ 3.28
S-FG-PTFE-M010-06-X	.375	10	-06	1400 / 600	\$ 1.88	\$ 3.64
S-FG-PTFE-M013-08-X	.500	13	-08	1000 / 330	\$ 2.44	\$ 6.16
S-FG-PTFE-M016-10-X	.625	16	-10	900 / 315	\$ 3.28	\$ 6.60
S-FG-PTFE-M019-12-X	.750	19	-12	750 / 300	\$ 3.88	\$ 6.64
S-FG-PTFE-M022-14-X	.875	22	-14	650 / 300	\$ 4.40	\$ 6.72
S-FG-PTFE-M025-16-X	1.000	25	-16	500 / 290	\$ 5.32	\$ 7.28
S-FG-PTFE-M032-20-X	1.250	32	-20	450 / 280	\$ 6.24	\$ 7.92
S-FG-PTFE-M038-24-X	1.500	38	-24	350 / 225	\$ 7.68	\$ 9.36
S-FG-PTFE-M041-26-X	1.625	41	-26	300 / 208	\$ 7.72	\$ 9.43
S-FG-PTFE-M044-28-X	1.750	44	-28	300 / 208	\$ 8.12	\$ 9.92
S-FG-PTFE-M051-32-X	2.000	51	-32	250 / 190	\$ 9.98	\$ 13.40
S-FG-PTFE-M057-36-X	2.250	57	-36	250 / 190	\$ 10.31	\$ 14.11
S-FG-PTFE-M064-40-X	2.500	64	-40	225 / 180	\$ 11.88	\$ 14.52
S-FG-PTFE-M070-44-X	2.750	70	-44	225 / 180	\$ 12.03	\$ 15.48
S-FG-PTFE-M076-48-X	3.000	76	-48	200 / 175	\$ 13.12	\$ 18.16
S-FG-PTFE-M083-52-X	3.250	83	-52	200 / 175	\$ 13.43	\$ 18.58
S-FG-PTFE-M089-56-X	3.500	89	-56	190 / 170	\$ 14.24	\$ 19.56
S-FG-PTFE-M095-60-X	3.750	95	-60	190 / 170	\$ 15.09	\$ 20.16
S-FG-PTFE-M102-64-X	4.000	102	-64	175 / 140	\$ 17.28	\$ 22.12
S-FG-PTFE-M114-72-X	4.500	114	-72	175 / 140	\$ 20.66	\$ 29.23
S-FG-PTFE-M127-80-X	5.000	127	-80	120 / 100	\$ 24.76	\$ 37.68

For the “X” value, use “1” to specify Thin Wall; use “2” to specify Thick Wall

Thin Wall = 1/16” / 1.59mm • Thick Wall = 1/8” / 3.18mm / This Product is Available By-The-Foot

The PTFE is applied to the sleeve through a proprietary sinterization process. The result is a PTFE coating on the sleeve which is soft, robust and flexible; however, it can be abrasively removed from the sleeve with aggressive fingernail scraping, resulting in a thinner and thinner layer of PTFE remaining with each pass. The PTFE also causes the yarns to be sealed and the small gaps between the yarns filled, resulting in an almost air-tight / liquid-tight sleeve wall.

Fiberglass Fabric with PTFE Resin Coating Sleeve with VELCRO® Brand Hook & Loop Closure

550°F / 287°C: Continuous Rating – Higher Temperature for Shorter Periods
Scuff-Sleeve™ VC



- Specialty protection for hoses, wire and cables.
- Sleeve with Velcro for easy retrofit.
- Sleeve is made from fiberglass base fabric impregnated with a PTFE resin coating. Excellent chemical resistance. Temperature range - 60°F to +550°F. Excellent UV protection. Not for use near open flame or welding.
- Used for food processing robot cables, lines and hoses.
- Washdown resistant
- Removeable for machine cleaning

Fiberglass Fabric with PTFE Resin Coating Sleeve with VELCRO® Brand Closure (Continued)

550°F / 287°C: Continuous Rating – Higher Temperature for Shorter Periods

Scuff-Sleeve™ VC



Sold in 50 foot increments up to 150 feet continuous rolls. Available in standard sizes; larger or custom sizes can be easily fabricated if required. Helps to organize and bundle hoses and cables.

Scuff-Sleeve™ VC: PTFE Impregnated Fiberglass Fabric Specialty Protection Sleeve with VELCRO® Brand Hook & Loop Closure				
Part Number	Size			Price per Foot
	inch / mm / -dash			FG/PTFE resin
S-FG-PTFE-VCL-M025-16 *	1.00	25	-16	\$ 12.03
S-FG-PTFE-VCL-M051-32	2.00	51	-32	\$ 15.60
S-FG-PTFE-VCL-M064-40	2.50	64	-40	\$ 16.76
S-FG-PTFE-VCL-M070-44	2.75	70	-44	\$ 18.28
S-FG-PTFE-VCL-M076-48	3.00	76	-48	\$ 19.55
S-FG-PTFE-VCL-M083-52	3.25	83	-52	\$ 20.36
S-FG-PTFE-VCL-M089-56	3.50	89	-56	\$ 21.47
S-FG-PTFE-VCL-M102-64	4.00	102	-64	\$ 22.36
S-FG-PTFE-VCL-M127-80	5.00	127	-80	\$ 23.84
S-FG-PTFE-VCL-M152-96	6.00	152	-96	\$ 24.91
S-FG-PTFE-VCL-M178-112	7.00	165	-104	\$ 31.40
S-FG-PTFE-VCL-M203-128	8.00	203	-128	\$ 32.37

Custom sizes available

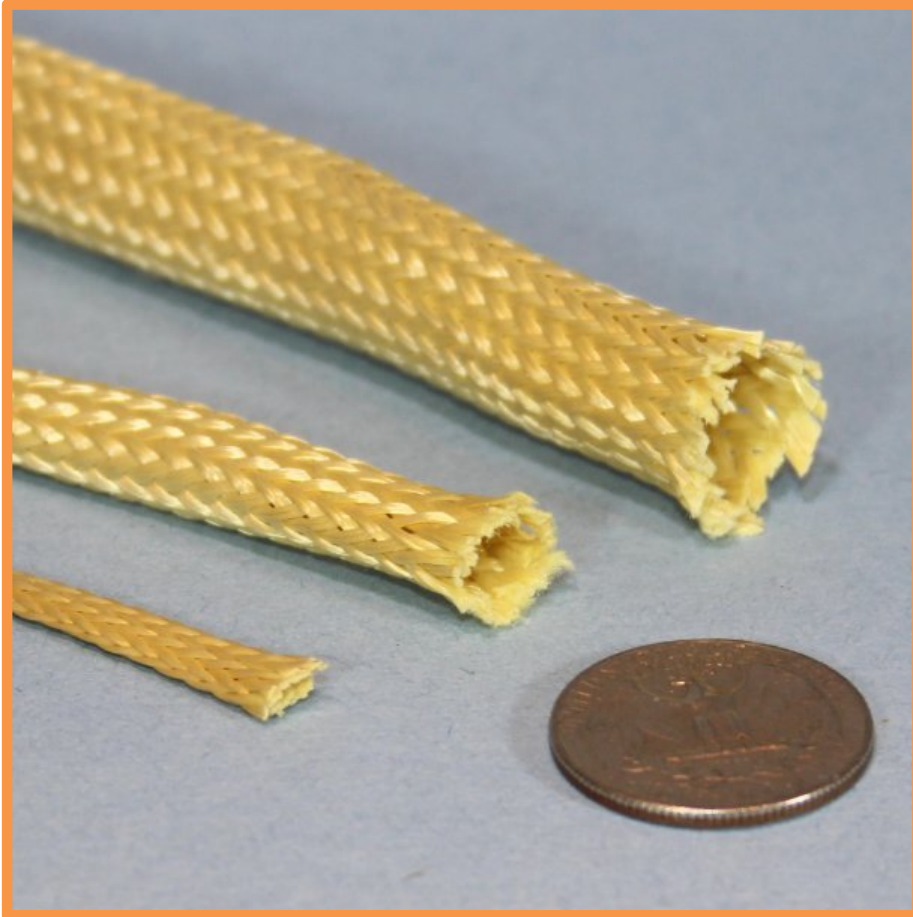
Width of the Velcro is 1.5" except part numbers indicated with (*) which is .75".

Kevlar® Braided Aramid Sleeve - Standard Wall

320°F / 160°C: Continuous Rating – Higher Temperature for Shorter Periods

FlameShield™ High Temperature, Heat Resistant High Strength & Cut Resistant

Expandable Sleeve - Premium Grade – Standard Wall Thickness



Kevlar sleeve is soft and pliable, highly flexible.

Halogen & asbestos free.

Fibers are 20 times stronger than steel for the same diameter. Highly cut resistant.

Braid angle allows this sleeve to expand/contract slightly to accommodate irregular surfaces and turns, splices and in-line connectors. Expansion does cause surface coverage to reduce slightly.

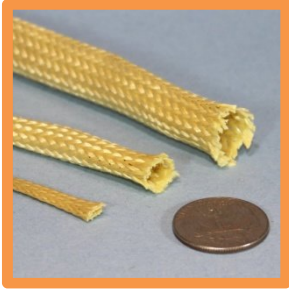
Available in natural (yellow) color.

.045" / 1.14 mm wall thickness.

This product is made from genuine Kevlar®.

**320°F / 160°C maximum continuous rating with high insulation value
& excellent personnel protection. Short term exposure to 572°F / 300°C**

Kevlar® Braided Aramid Sleeve - Standard Wall (Continued)
320°F / 160°C: Continuous Rating – Higher Temperature for Shorter Periods
FlameShield™ High Temperature, Heat Resistant High Strength & Cut Resistant
Expandable Sleeve - Premium Grade – Standard Wall Thickness



FlameShield™ High Temperature & Heat Resistant Braided Kevlar® Aramid Sleeve – Standard Wall – Premium Grade

Part Number	Nominal ID	Size Range	Spool Length in feet Bulk / Small	Price per Spool Bulk Spool / Small Spool
S-K-SW-M006-04-X	1/4" / 6 mm	1/8" to 5/16"	500 / 50	\$ 291.25 / \$ 42.37
S-K-SW-M013-08-X	1/2" / 13 mm	5/16" to 5/8"	250 / 50	\$ 373.76 / \$ 87.25
S-K-SW-M019-12-X	3/4" / 19 mm	9/16" to 1"	250 / 50	\$ 561.24 / \$ 124.75
S-K-SW-M025-16-X	1" / 25 mm	3/4" to 1 1/8"	200 / 25	\$ 599.21 / \$ 87.37
S-K-SW-M032-20-X	1 1/4" / 32 mm	1" to 1 1/2"	125 / 25	\$ 467.54 / \$ 106.43
S-K-SW-M038-24-X	1 1/2" / 38 mm	1 1/4" to 1 3/4"	100 / 25	\$ 516.75 / \$ 141.70
S-K-SW-M044-28-X	1 3/4" / 44 mm	1 1/2" to 2"	100 / 25	\$ 650.00 / \$ 195.00
S-K-SW-M051-32-X	2" / 51 mm	1 3/4" to 2 1/4"	100 / 25	\$ 801.37 / \$ 212.75
S-K-SW-M064-40-X	2 1/2" / 64 mm	2 1/4" to 2 3/4"	100 / 25	\$ 847.50 / \$ 254.25
S-K-SW-M076-48-X	3" / 76 mm	2 3/4" to 3 1/4"	100 / 25	\$ 1052.50 / \$ 315.75
S-K-SW-M089-56-X	3 1/2" / 89 mm	3 1/4" to 3 3/4"	100 / 25	\$ 1477.50 / \$ 443.25
S-K-SW-M102-64-X	4" / 102 mm	3 3/4" to 4 1/4"	100 / 25	\$ 1712.50 / \$ 513.75

For the "X" value: "F" for By-The-Foot followed by length in feet (example: F66 = 66 feet)
 use "B" for Bulk Spool size, use "S" for Small Spool size

This Product is available only in full Spools



Kevlar products are difficult to cut due to their strength. Regular or heavy duty scissors can sometimes cut these materials, but often fail quickly as the Kevlar quickly dulls the cutting edge.

Kevlar Shears are specifically designed to cut Kevlar, and feature a serrated blade (or dual serrated blades) so that the fibers don't slip while cutting, holding the fiber in position and allowing for a greater shear force to be applied by the opposing blade.

These shears are Extra Heavy Duty, and can be used for other materials such as cutting steel wires and steel tie wraps. Part number TL-S-KEV-HD. Priced from \$52.00 to \$79.00 depending on blade length.

Kevlar® is a registered trademark of E. I. Du Pont de Nemours and Company

Kevlar® Braided Aramid Sleeve – Colored - Standard Wall Thickness

320°F / 160°C: Continuous Rating – Higher Temperature for Shorter Periods

FlameShield™ High Temperature, Heat Resistant High Strength &

Cut Resistant Expandable Sleeve - Premium Grade – Standard Wall Thickness



- Kevlar sleeve is soft and pliable, highly flexible.
- Halogen & asbestos free.
- Fibers are 20 times stronger than steel for the same diameter. Highly cut resistant.
- Braid angle allows this sleeve to expand/contract slightly to accommodate irregular surfaces and turns, splices and in-line connectors. Expansion does cause surface coverage to reduce slightly.
- Available in 5 colors. The colored sleeve is made by adding a saturant which make the sleeve stiffer than non colored sleeve.
- .045" / 1.14 mm wall thickness.
- This product is made from genuine Kevlar® aramid yarns. Kevlar® is a registered trademark of DuPont.

**320°F / 160°C maximum continuous rating with high insulation value
& excellent personnel protection. Short term exposure to 572°F / 300°C**

Kevlar® Braided Aramid Sleeve – (Continued)

Colored - Standard Wall Thickness

320°F / 160°C: Continuous Rating – Higher Temperature for Shorter Periods

FlameShield™ High Temperature, Heat Resistant High Strength &

Cut Resistant Expandable Sleeve - Premium Grade – Standard Wall Thickness

FlameShield™ High Temperature & Heat Resistant Braided Kevlar® Aramid Sleeve - Premium					
Part Number	Nominal ID	Size Range	Spool Length in feet Bulk / Small	Colored Sleeve Price per Spool Bulk Spool / Small Spool	
S-K-SWC-M006-04-X-Y	1/4" / 6 mm	1/8" to 5/16"	500 / 50	\$ 931.50 / \$ 110.40	
S-K-SWC-M013-08-X-Y	1/2" / 13 mm	5/16" to 5/8"	250 / 50	\$ 884.25 / \$ 209.60	
S-K-SWC-M019-12-X-Y	3/4" / 19 mm	9/16" to 1"	250 / 50	\$ 972.00 / \$ 115.20	
S-K-SWC-M025-16-X-Y	1" / 25 mm	¾" to 1 1/8"	200 / 25	\$ 1080.00 / \$ 160.00	
S-K-SWC-M032-20-X-Y	1 1/4" / 32 mm	1" to 1 ½"	125 / 25	\$ 786.38 / \$ 186.40	
S-K-SWC-M038-24-X-Y	1 1/2" / 38 mm	1 ¼" to 1 ¾"	100 / 25	\$ 723.60 / \$ 186.40	
S-K-SWC-M044-28-X-Y	1 3/4" / 44 mm	1 ½ to 2"	100 / 25	\$ 877.50 / \$ 260.00	
S-K-SWC-M051-32-X-Y	2" / 51 mm	1 3/4" to 2 1/4"	100 / 25	\$ 1012.50 / \$ 300.00	
S-K-SWC-M064-40-X-Y	2 1/2" / 64 mm	2 ¼" to 2 ¾"	100 / 25	\$ 1144.80 / \$ 339.20	
S-K-SWC-M076-48-X-Y	3" / 76 mm	2 ¾" to 3 ¼"	100 / 25	\$ 1420.20 / \$ 420.80	
S-K-SWC-M089-56-X-Y	3 1/2" / 89 mm	3 ¼" to 3 ¾"	100 / 25	\$ 1995.30 / \$ 591.20	
S-K-SWC-M102-64-X-Y	4" / 102 mm	3 ¾" to 4 ¼"	100 / 25	\$ 2311.20 / \$ 684.80	

For the "X" value: use "B" for Bulk Spool size, use "S" for Small Spool size

For the "Y" value use OR - Orange, BK - Black, BL - Blue, RD - Red and GR - Green, YL-Yellow

This Product is available only in Spool Lengths



Kevlar products are difficult to cut due to their strength. Regular or heavy duty scissors can sometimes cut these materials, but often fail quickly as the Kevlar quickly dulls the cutting edge.

Kevlar Shears are specifically designed to cut Kevlar, and feature a serrated blade (or dual serrated blades) so that the fibers don't slip while cutting, holding the fiber in position and allowing for a greater shear force to be applied by the opposing blade.

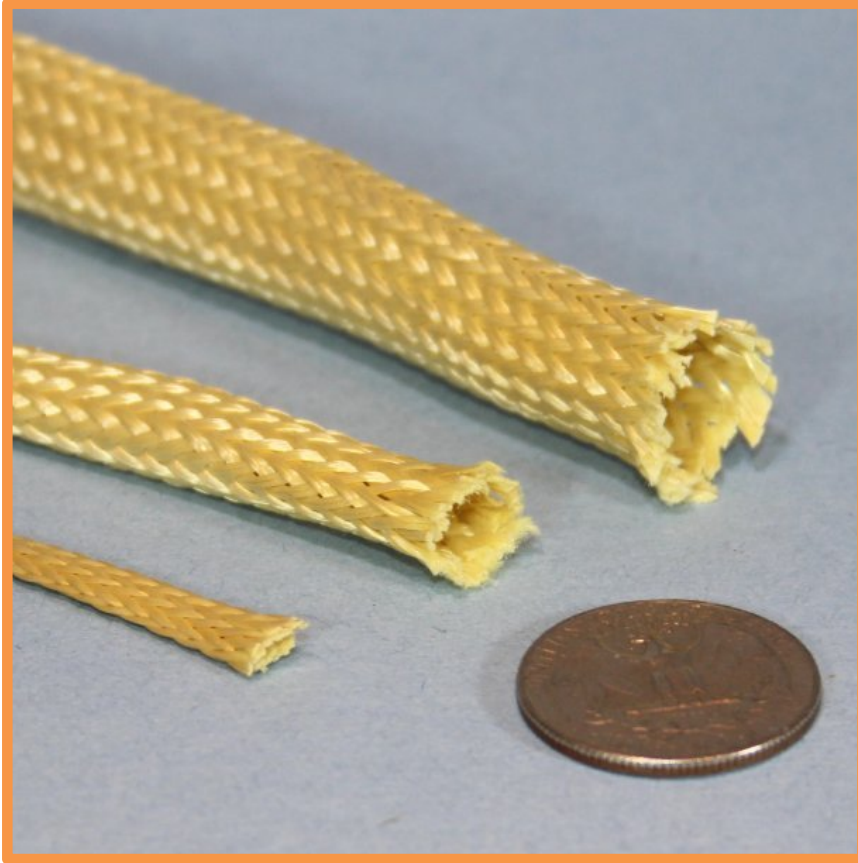
These shears are Extra Heavy Duty, and can be used for other materials such as cutting steel wires and steel tie wraps. Part number TL-S-KEV-HD. Priced from \$52.00 to \$79.00 depending on blade length.

Kevlar® is a registered trademark of E. I. Du Pont de Nemours and Company



Kevlar® Braided Aramid Sleeve - Thin Wall

320°F / 160°C: Continuous Rating – Higher Temperature for Shorter Periods
FlameShield™ High Temperature, Heat Resistant High Strength & Cut Resistant Expandable Sleeve - Premium Grade – Standard Wall Thickness



- Kevlar sleeve is soft, pliable, and highly flexible.
- Halogen & asbestos free.
- Fibers are 20 times stronger than steel for the same diameter..
- Highly cut resistant.
- Braid angle allows this sleeve to expand slightly to accommodate irregular surfaces and turns, splices and in-line connectors. Expansion does cause surface coverage to reduce.
- Available in natural (yellow) color.
- .02" / 0.508 mm wall thickness.

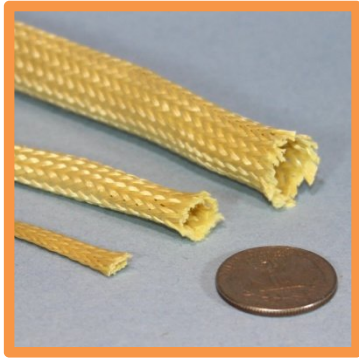
**320°F / 160°C maximum continuous rating with high insulation value
& excellent personnel protection. Short term exposure to 572°F / 300°C**

Kevlar® Braided Aramid Sleeve - Thin Wall (Continued)

320°F / 160°C: Continuous Rating – Higher Temperature for Shorter Periods

FlameShield™ High Temperature, Heat Resistant High Strength &

Cut Resistant Expandable Sleeve - Premium Grade – Standard Wall Thickness



FlameShield™ High Temperature & Heat Resistant Braided Kevlar® Aramid Sleeve - Premium

Part Number	Nominal ID	Size Range	Spool Length in feet Bulk / Small	Price per Spool Bulk Spool / Small Spool	Price per Foot
S-K-TW-M006-04-X	1/4" / 6 mm	1/8" to 5/16"	500 / 50	\$ 291.25 / \$ 42.37	\$ 1.68
S-K-TW-M013-08-X	1/2" / 13 mm	5/16" to 5/8"	250 / 50	\$ 373.76 / \$ 87.25	\$ 3.48
S-K-TW-M019-12-X	3/4" / 19 mm	9/16" to 1"	250 / 50	\$ 561.24 / \$ 124.75	\$ 4.98
S-K-TW-M025-16-X	1" / 25 mm	3/4" to 1 1/8"	200 / 25	\$ 599.21 / \$ 87.37	\$ 6.98
S-K-TW-M032-20-X	1 1/4" / 32 mm	1" to 1 1/2"	125 / 25	\$ 467.54 / \$ 106.43	\$ 8.51
S-K-TW-M038-24-X	1 1/2" / 38 mm	1 1/4" to 1 3/4"	100 / 25	\$ 516.75 / \$ 141.70	\$ 11.23
S-K-TW-M051-32-X	2" / 51 mm	1 1/2" to 2"	100 / 25	\$ 801.37 / \$ 212.75	\$ 17.02

For the "X" value: "F" for By-The-Foot followed by length in feet (example: F66 = 66 feet)
use "B" for Bulk Spool size, use "S" for Small Spool size

This Product is available By-The-Foot and in Spools



Kevlar products are difficult to cut due to their strength. Regular or heavy duty scissors can sometimes cut these materials, but often fail quickly as the Kevlar quickly dulls the cutting edge.

Kevlar Shears are specifically designed to cut Kevlar, and feature a serrated blade (or dual serrated blades) so that the fibers don't slip while cutting, holding the fiber in position and allowing for a greater shear force to be applied by the opposing blade.

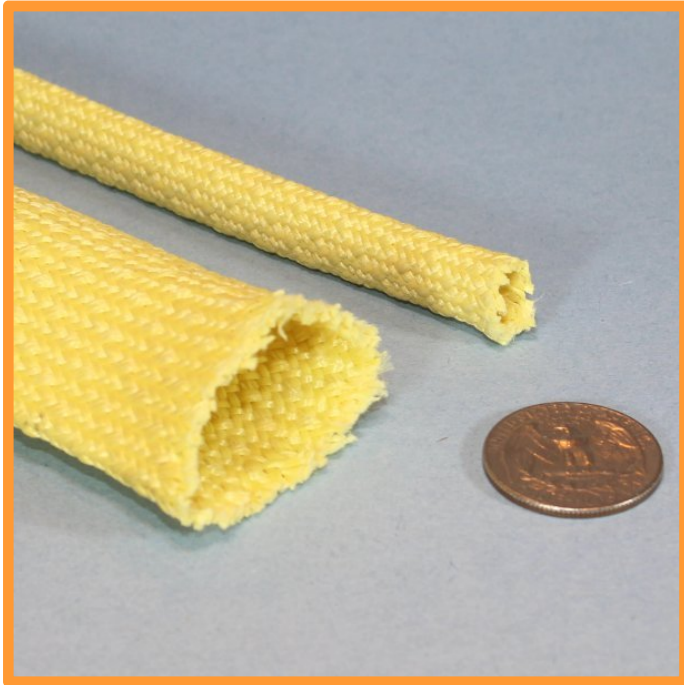
These shears are Extra Heavy Duty, and can be used for other materials such as cutting steel wires and steel tie wraps. Part number TL-S-KEV-HD. Priced from \$52.00 to \$79.00 depending on blade length.

Kevlar® is a registered trademark of E. I. Du Pont de Nemours and Company



Kevlar® Braided Aramid Sleeve - Heavy Wall

320°F / 160°C: Continuous Rating – Higher Temperature for Shorter Periods
FlameShield™ High Temperature, Heat Resistant, High Strength & Cut Resistant
Expandable Sleeve - Premium Grade – Heavy Wall Thickness



- Soft and pliable, highly flexible.
- Halogen & asbestos free.
- 20 times stronger than steel.
- Highly cut resistant.
- Braid angle allows this sleeve to expand to accommodate irregular surfaces and turns, splices and in-line connectors.
- Available in natural (yellow) color.
- .056" / 1.42 mm wall thickness.

320°F / 160°C maximum continuous rating with high insulation value & excellent personnel protection. Short term exposure to 572°F / 300°C

FlameShield™ High Temperature & Heat Resistant Braided Kevlar® Aramid Sleeve – Premium Heavy Wall					
Part Number	Nominal ID	Size Range	Spool Length In feet Bulk / Small	Price per Spool Bulk Spool / Small Spool	
S-K-HD-M006-04-X	1/4" / 6 mm	1/4" to 3/8"	500 / 50	\$ 1397.82 / \$ 152.50	
S-K-HD-M013-08-X	1/2" / 13 mm	1/2" to 1"	250 / 50	\$ 1250.05 / \$ 262.50	
S-K-HD-M025-16-X	1" / 25 mm	1" to 1 3/4"	200 / 25	\$ 1424.67 / \$ 190.63	
S-K-HD-M032-20-X	1 1/4" / 32 mm	1 1/4" to 2"	125 / 25	\$ 1103.72 / \$ 232.50	

For the "X" value: use "F" for By-The-Foot followed by length in feet (example: F66 = 66 feet)
use "B" for Bulk Spool size, use "S" for Small Spool size

This Product is available in By-The-Foot lengths and spools



Kevlar products are difficult to cut due to their strength. Regular or heavy duty scissors can sometimes cut these materials, but often fail quickly as the Kevlar quickly dulls the cutting edge.

Kevlar Shears are specifically designed to cut Kevlar, and feature a serrated blade (or dual serrated blades) so that the fibers don't slip while cutting, holding the fiber in position and allowing for a greater shear force to be applied by the opposing blade.

These shears are Extra Heavy Duty, and can be used for other materials such as cutting steel wires and steel tie wraps. Part number TL-S-KEV-HD. Priced from \$52.00 to \$79.00 depending on blade length.

Kevlar® is a registered trademark of E. I. Du Pont de Nemours and Company

Nomex[®] Braided Sleeve

662°F / 350°C: Continuous Rating – Higher Temperature for Shorter Periods

FlameShield™ High Temperature, Heat & Flame Resistant Expandable Sleeve – Premium Grade



- Genuine Dupont Nomex[®]
- Soft and pliable.
- Halogen & asbestos free.
- 90,000 psi tensile strength.
- Cuts easily to length with scissors. Braid angle allows this sleeve to expand slightly to accommodate irregular surfaces and turns, splices and in-line connectors.
- Available in natural and green color.
- .016" wall thickness.

662°F / 350°C continuous rating, high insulation value & excellent personnel protection

FlameShield™ Braided Nomex [®] Sleeve High Temperature & Heat Resistant – Premium Grade			
Part Number	Nominal ID	Size Range	Price per Spool 100ft / 25ft
S-NMX-M003-02-X-Y	1/8"	1/16" to 1/4"	\$ 44.66 / \$ 23.53
S-NMX-M006-04-X-Y	1/4"	1/8" to 5/16"	\$ 180.25 / \$ 57.76
S-NMX-M008-05-X-Y	5/16"	7/32" to 7/16"	\$ 209.75 / \$ 64.90
S-NMX-M010-06-X-Y	3/8"	1/4" to 1/2"	\$ 240.00 / \$ 72.51
S-NMX-M013-08-X-Y	1/2"	5/16" to 5/8"	\$ 326.06 / \$ 94.05
S-NMX-M016-10-X-Y	5/8"	7/16" to 7/8"	\$ 415.33 / \$ 116.24
S-NMX-M019-12-X-Y	3/4"	9/16" to 1"	\$ 512.06 / \$ 140.52
S-NMX-M025-16-X-Y	1"	3/4" to 1 1/8"	\$ 865.75 / \$ 228.97
S-NMX-M032-20-X-Y	1 1/4"	1" to 1 1/2"	\$ 1250.25 / \$ 325.43
S-NMX-M038-24-X-Y	1 1/2"	1 1/4" to 1 3/4"	\$ 1442.75 / \$ 373.60
S-NMX-M044-28-X-Y	1 3/4"	1 1/2" to 2"	\$ 1707.22 / \$ 439.67

For the "X" value, use "100" for 100 foot spool, use "25" for 25 foot spool

For the "Y" value, use "NT" natural color, use "GN" for green color

Please call for additional discount pricing when ordering multiple spools.

This Product is NOT Available By-The-Foot – Spools Only



Fiberglass Knitted Sleeve: Premium Grade

1200°F / 648°C: Continuous Rating – Higher Temperature for Shorter Periods

DeltaGlass™ Very High Temperature & Heat Resistant Knitted Sleeve for Wire, Cable, Hose & Pipe / Tube protection and Personnel Burn Protection



This Knitted fiberglass sleeve is fabricated from high quality type E fiberglass that will not burn and will withstand continuous exposure to temperatures of 1200°F / 648°C.

This material resists most acids and alkalis and is unaffected by most bleaches and solvents. It is highly flexible and conformable.

The base fiber is manufactured to the specifications of ASTM D-578, ASTM committee D13, and subcommittee D13.18.

Knitted or Braided Fiberglass Sleeve is typically used to protect hoses, cables and wires from high temperatures up to 1200°F / 648°C continuous use.

1200°F / 648°C continuous rating, high insulation value & excellent personnel protection.

Knitted sleeve has an advantage over braided sleeve, as it is dimensionally stable and only minimally expandable compared to braided sleeve – it conforms well to the object over which it is placed without clamping to hold it onto the object.

This sleeve is commonly used to protect wire, cables and hoses from heat exposure. The construction of the sleeve provides a high bulk, ensuring a high insulation value. It can also be used in multiple layers to increase the total insulation value. Conversely, this sleeve can protect personnel from contact burns due to hot process hoses, tubing or lines.

The total sleeve thickness necessary to drop the surface temperature to the 140°F hot surface incidental contact temperature (OSHA generally accepted value) varies with the temperature of the hose or tube, the fluid flow rate, and ambient temperature; but as a general rule, a pipe or tube at 1000°F will require a 1" thickness of fiberglass insulation.

DeltaGlass™ Very High Temperature & Heat Resistant Knitted Fiberglass Sleeve – Premium Grade

ID Size inch / mm / dash#			Part Number	Price per Foot / 100 ft length	ID Size inch / mm / dash#			Part Number	Price per Foot / 100 ft length
1/2"	13	-08	S-FG-KNIT-M013-08	\$ 2.66 / \$ 133.00	2 1/4"	57	-36	S-FG-KNIT-M057-36	\$ 10.20 / \$ 510.00
5/8"	16	-10	S-FG-KNIT-M016-10	\$ 2.94 / \$ 147.00	2 1/2"	64	-40	S-FG-KNIT-M064-40	\$ 13.20 / \$ 660.00
3/4"	19	-12	S-FG-KNIT-M019-12	\$ 3.34 / \$ 167.00	2 3/4"	70	-44	S-FG-KNIT-M070-44	\$ 16.86 / \$ 843.00
7/8"	22	-14	S-FG-KNIT-M022-14	\$ 3.94 / \$ 197.00	3"	76	-48	S-FG-KNIT-M076-48	\$ 19.00 / \$ 950.00
1"	25	-16	S-FG-KNIT-M025-16	\$ 4.54 / \$ 227.00	3 1/4"	83	-52	S-FG-KNIT-M083-52	\$ 20.34 / \$ 1017.00
1 1/4"	32	-20	S-FG-KNIT-M032-20	\$ 5.40 / \$ 270.00	3 1/2"	89	-56	S-FG-KNIT-M089-56	\$ 21.86 / \$ 1093.00
1 3/8"	35	-22	S-FG-KNIT-M035-22	\$ 5.54 / \$ 277.00	3 3/4"	95	-60	S-FG-KNIT-M095-60	\$ 22.66 / \$ 1133.00
1 1/2"	38	-24	S-FG-KNIT-M038-24	\$ 5.66 / \$ 283.00	4"	102	-64	S-FG-KNIT-M102-64	\$ 22.86 / \$ 1143.00
1 3/4"	44	-28	S-FG-KNIT-M044-28	\$ 7.34 / \$ 367.00	4 1/2"	114	-72	S-FG-KNIT-M114-72	\$ 26.26 / \$ 1313.00
1 7/8"	48	-30	S-FG-KNIT-M048-30	\$ 7.94 / \$ 397.00	5"	127	-80	S-FG-KNIT-M127-80	\$ 30.20 / \$ 1510.00
2"	51	-32	S-FG-KNIT-M051-32	\$ 8.54 / \$ 427.00	6"	152	-96	S-FG-KNIT-M152-96	\$ 36.20 / \$ 1810.00

Minimum order is 25 feet

DeltaGlass™ Knitted or Braided Fiberglass Sleeving is typically used to protect hoses, cables and wires from high temperatures up to 1200°F / 648°C continuous use.

Fiber Type: E Glass
 Breaking Tenacity: 1.71 gf/TEX. Std. 1.71 gf/TEX Wet
 Breaking Elongation: 4.81% Std. 4.81% Wet
 Average Stiffness: 2824.3 cn/TEX

Specific Gravity: 2.54-2.69
 Tensile Strength: 450,000-500,000 psi.
 Elastic Recovery: 100%

Effect of Heat: Will not burn; Retains 75% tensile at 343°C; Softens at 732-877°C; Melts at 1121-1182°C

Effect of Acids and Alkalis; Resistance to acids is fair. Good resistance to most alkalis.

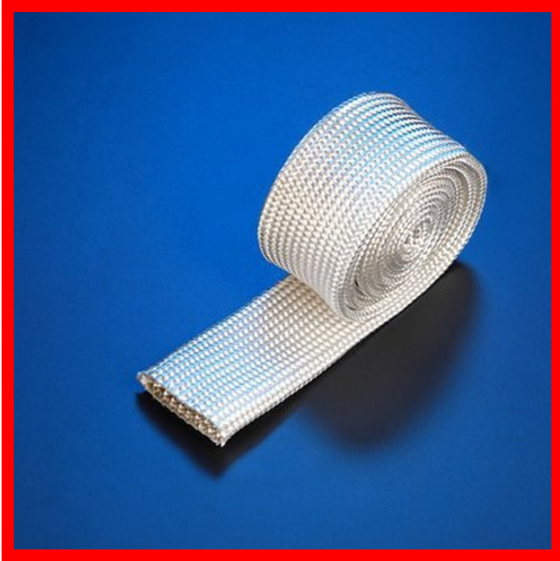
Effect of Bleaches and Solvents: Unaffected



Fiberglass Braided Sleeve: Premium Grade

1200°F / 648°C: Continuous Rating – Higher Temperature for Shorter Periods

DeltaGlass™ Very High Temperature Heat Resistant Braided Sleeve for Wire, Cable, Hose & Pipe / Tube protection and Personnel Burn Protection



This Braided fiberglass sleeve is fabricated from high quality type E fiberglass that will not burn and will withstand continuous exposure to temperatures of 1200°F / 648°C.

This material resists most acids and alkalis and is unaffected by most bleaches and solvents. It is highly flexible and conformable.

The base fiber is manufactured to the specifications of ASTM D-578, ASTM committee D13, and subcommittee D13.18.

1200°F / 648°C continuous rating, high insulation value & excellent personnel protection

Both a Heat Treated and Heat Treated with Acrylic Saturant version of this product is available – please enquire

Braided sleeve has the ability to expand and contract a nominal amount, if expanded then the coverage of the braid is lower than if the sleeve is contracted.

This sleeve is commonly used to protect wire, cables and hoses from heat exposure. The construction of the sleeve provides a high bulk, ensuring a high insulation value. It can also be used in multiple layers to increase the total insulation value. Conversely, this sleeve can protect personnel from contact burns due to hot process hoses, tubing or lines.

The total sleeve thickness necessary to drop the surface temperature to the 140°F hot surface incidental contact temperature (OSHA generally accepted value) varies with the temperature of the hose or tube, the fluid flow rate, and ambient temperature; but as a general guide, a pipe or tube at 1000°F will require a 1" thickness of fiberglass insulation.

DeltaGlass™ Very High Temperature & Heat Resistant Braided Fiberglass Sleeve - Premium Grade

ID Size inch / mm / dash#			Part Number	Price per Foot / 100 ft spool	ID Size inch / mm / dash#			Part Number	Price per Foot / 100 ft spool
3/8	10	-06	S-FG-BRAID-M010-06	\$ 4.34 / \$ 217.00	1 7/8"	48	-30	S-FG-BRAID-M048-30	\$ 14.88 / \$ 744.00
1/2"	13	-08	S-FG-BRAID-M013-08	\$ 4.64 / \$ 232.00	2"	51	-32	S-FG-BRAID-M051-32	\$ 16.66 / \$ 833.00
5/8"	16	-10	S-FG-BRAID-M016-10	\$ 4.94 / \$ 247.00	2 1/4"	57	-36	S-FG-BRAID-M057-36	\$ 17.34 / \$ 867.00
3/4"	19	-12	S-FG-BRAID-M019-12	\$ 6.00 / \$ 300.00	2 1/2"	64	-40	S-FG-BRAID-M064-40	\$ 18.08 / \$ 904.00
7/8"	22	-14	S-FG-BRAID-M022-14	\$ 6.62 / \$ 331.00	2 3/4"	70	-44	S-FG-BRAID-M070-44	\$ 19.34 / \$ 967.00
1"	25	-16	S-FG-BRAID-M025-16	\$ 7.34 / \$ 367.00	3"	76	-48	S-FG-BRAID-M076-48	\$ 21.00 / \$ 1050.00
1 1/4"	32	-20	S-FG-BRAID-M032-20	\$ 8.66 / \$ 433.00	3 1/4"	83	-52	S-FG-BRAID-M083-52	\$ 23.00 / \$ 1150.00
1 3/8"	35	-22	S-FG-BRAID-M035-22	\$ 9.66 / \$ 483.00	3 1/2"	89	-56	S-FG-BRAID-M089-56	\$ 24.10 / \$ 1205.00
1 1/2"	38	-24	S-FG-BRAID-M038-24	\$ 10.66 / \$ 533.00	3 3/4"	95	-60	S-FG-BRAID-M095-60	\$ 24.86 / \$ 1243.00
1 3/4"	44	-28	S-FG-BRAID-M044-28	\$ 12.66 / \$ 633.00	4"	102	-64	S-FG-BRAID-M102-64	\$ 25.66 / \$ 1283.00

Minimum order is \$200.00. By-The-Foot sleeve may be mixed sizes to achieve minimum order.

DeltaGlass™ Knitted or Braided Fiberglass sleeve is typically used to protect hoses, cables and wires from high temperatures up to 1200°F / 648°C continuous use.

Fiber Type:	E Glass	Specific Gravity:	2.54-2.69
Breaking Tenacity:	1.71 gf/TEX. Std. 1.71 gf/TEX Wet	Tensile Strength:	450,000-500,000 psi.
Breaking Elongation:	4.81% Std. 4.81% Wet	Elastic Recovery:	100%
Average Stiffness:	2824.3 ch/TEX		

Effect of Heat: Will not burn; Retains 75% tensile at 343°C; Softens at 732-877°C; Melts at 1121-1182°C
 Effect of Acids and Alkalis; Resistance to acids is fair. Good resistance to most alkalis.
 Effect of Bleaches and Solvents: Unaffected



Fiberglass Braided Sleeve: Industrial Grade
1200°F / 648°C: Continuous Rating – Higher Temperature for Shorter Periods
DeltaGlass™ Very High Temperature & Heat Resistant



- DeltaGlass™ Braided Industrial sleeve
- Available in Thin Wall (1/16”) and Thick Wall (1/8”).

This braided sleeve is fabricated from high quality type E fiberglass that will not burn and will withstand continuous exposure to temperatures of 1200°F / 648°C.

This material resists most acids and alkalis and is unaffected by most bleaches and solvents. It is highly flexible and conformable. The base fiber is manufactured to the specifications of ASTM D-578, ASTM committee D13, and subcommittee D13.18.

A Heat Treated version of this product is available – please enquire

1200°F / 648°C continuous rating, high insulation value & excellent personnel protection

DeltaGlass™ Very High Temperature & Heat Resistant Fiberglass Braided Sleeve Industrial Grade							
Part Number	Size inch / mm / -dash			Thin Wall		Thick Wall	
				Feet / Metres per spool	Price per Foot / Metre	Feet / Metres per spool	Price per Foot / Metre
S-FG-BI-M006-04-X	.250	6	-4	1400 / 426	\$ 0.56 / \$ 1.84	700 / 213	\$ 1.08 / \$ 3.54
S-FG-BI-M010-06-X	.375	10	-6	1400 / 426	\$ 0.76 / \$ 2.49	600 / 182	\$ 1.20 / \$ 3.94
S-FG-BI-M013-08-X	.500	13	-8	1000 / 304	\$ 0.92 / \$ 3.02	330 / 100	\$ 2.00 / \$ 6.56
S-FG-BI-M016-10-X	.625	16	-10	900 / 274	\$ 0.96 / \$ 3.15	315 / 96	\$ 2.16 / \$ 7.09
S-FG-BI-M019-12-X	.750	19	-12	750 / 228	\$ 1.01 / \$ 3.31	300 / 91	\$ 2.18 / \$ 7.15
S-FG-BI-M022-14-X	.875	22	-14	650 / 198	\$ 1.12 / \$ 3.67	300 / 91	\$ 2.20 / \$ 7.22
S-FG-BI-M025-16-X	1.000	25	-16	500 / 152	\$ 1.52 / \$ 4.99	290 / 88	\$ 2.40 / \$ 7.87
S-FG-BI-M032-20-X	1.250	32	-20	450 / 137	\$ 1.80 / \$ 5.90	280 / 85	\$ 2.60 / \$ 8.53
S-FG-BI-M038-24-X	1.500	38	-24	350 / 106	\$ 2.36 / \$ 7.74	225 / 68	\$ 3.04 / \$ 9.97
S-FG-BI-M044-28-X	1.750	44	-28	300 / 91	\$ 2.52 / \$ 8.27	208 / 63	\$ 3.24 / \$ 10.63
S-FG-BI-M051-32-X	2.000	51	-32	250 / 76	\$ 2.64 / \$ 8.66	190 / 57	\$ 4.36 / \$ 14.30
S-FG-BI-M064-40-X	2.500	64	-40	225 / 68	\$ 2.96 / \$ 9.71	180 / 54	\$ 4.76 / \$ 15.61
S-FG-BI-M076-48-X	3.000	76	-48	200 / 60	\$ 3.20 / \$ 10.50	175 / 53	\$ 5.92 / \$ 19.42
S-FG-BI-M089-56-X	3.500	89	-56	190 / 57	\$ 3.56 / \$ 11.68	170 / 51	\$ 6.40 / \$ 20.99
S-FG-BI-M102-64-X	4.000	102	-64	175 / 53	\$ 5.88 / \$ 19.29	140 / 42	\$ 7.20 / \$ 23.62
S-FG-BI-M127-80-X	5.000	127	-80	120 / 36	\$ 6.16 / \$ 20.21	100 / 30	\$ 12.28 / \$ 40.28

**For the “X” value in the part number:
 use “1” to specify Thin Wall; use “2” to specify Thick Wall**

Thin Wall = 1/16” / 1.59mm • Thick Wall = 1/8” / 3.18mm

This Product is Available By-The-Foot

Fiberglass Braided Heat Treated Sleeve: Premium Grade
1200°F / 648°C: Continuous Rating – Higher Temperature for Shorter Periods
DeltaGlass™ Very High Temperature & Heat Resistant – Passes UL VW-1 Flame Test



This Braided fiberglass sleeve is fabricated from high quality type E fiberglass that will not burn and will withstand continuous exposure to temperatures of 1200°F / 648°C.

Heat Treating removes organics and impurities from the sleeve, and makes the product dimensionally stable to the high-end of its continuous exposure temperature (providing minimal shrinkage). The sleeve is exceptionally smooth and has extremely few loose filament ends protruding from the braid – making it extremely clean to use in a variety of applications including aerospace wiring protection and bundling and clean room applications.

This material resists most acids and alkalis and is unaffected by most bleaches and solvents. It is highly flexible and conformable.

The braiding is fine and dense, providing excellent protective coverage. Common applications for heat treated sleeve is for the protection of wiring, cables and hoses in consumer, industrial and commercial appliances and equipment such as ovens, kilns, toasters and heaters. The base fiber is manufactured to the specifications of ASTM D-578, ASTM committee D13, and subcommittee D13.18.

1200°F / 648°C continuous rating, high insulation value & excellent personnel protection

Very High Temperature & Heat Resistant
Fiberglass Braided Heat Treated Sleeve – Premium Grade
UL 1441 (VW-1) / Dielectric C-3 / UL Thermal Class S & C

Part Number	ID Size in / mm / dash #	Feet / Metres per Spool	Price Spool / Foot
S-FG-BHT-M006-04	0.250 / 6 / -4	500 / 152	\$ 815.00 / \$4.08
S-FG-BHT-M010-06	0.375 / 10 / -6	500 / 152	\$ 915.00 / \$4.58
S-FG-BHT-M013-08	0.500 / 13 / -8	400 / 121	\$ 997.00 / \$6.25
S-FG-BHT-M016-10	0.625 / 16 / -10	500 / 152	\$ 1,565.00 / \$7.83
S-FG-BHT-M019-12	0.750 / 19 / -12	400 / 121	\$ 1,332.00 / \$8.33
S-FG-BHT-M025-16	1.000 / 25 / -16	250 / 76	\$ 1,092.50 / \$10.93
S-FG-BHT-M038-24	1.500 / 38 / -24	200 / 60	\$ 1,500.00 / \$18.75

Please call for additional discount pricing when ordering more than 5 spools.

This Product is available By-The-Foot and by Spool Length



Braided Fiberglass Sleeve – Texturized - High Bulk

1200°F / 648°C: Continuous Rating – Higher Temperature for Shorter Periods

MaxSleeve™ Temperature & Heat Resistant Fiberglass Braided High Bulk Texturized Sleeve: Premium Grade



- MaxSleeve™ Braided High Bulk Texturized Premium Sleeve.
- Highest Insulation Value Sleeve Available.
- Available in Thin Wall (1/16”) and Thick Wall (1/8”).
- Texturization provides high bulk & high thermal insulation value

This braided sleeve is fabricated from high quality type E fiberglass that will not burn and will withstand continuous exposure to temperatures of 1200°F / 648°C.

This material resists most acids and alkalis and is unaffected by most bleaches and solvents. It is highly flexible and conformable. The base fiber is manufactured to the specifications of ASTM D-578, ASTM committee D13, and subcommittee D13.18.

Available Plain and Vermiculite Coated.

1200°F / 648°C continuous rating, high insulation value & excellent personnel protection

MaxSleeve™ High Bulk Texturized Braided Fiberglass Sleeve Premium Grade

Part Number	Size inch / mm / -dash			Thin Wall		Thick Wall	
				Feet / Metres per spool	Price per Spool	Feet / Metres per spool	Price per Spool
S-FG-TEX-M010-06-X	.375	10	-6	N/A	N/A	250 / 76	\$ 717.50
S-FG-TEX-M013-08-X	.500	13	-8	500 / 152	\$ 740.00	250 / 76	\$ 787.50
S-FG-TEX-M016-10-X	.625	16	-10	N/A	N/A	100 / 30	\$ 495.00
S-FG-TEX-M019-12-X	.750	19	-12	250 / 76	\$ 587.50	100 / 30	\$ 540.00
S-FG-TEX-M025-16-X	1.000	25	-16	250 / 76	\$ 675.00	100 / 30	\$ 585.00
S-FG-TEX-M032-20-X	1.250	32	-20	N/A	N/A	100 / 30	\$ 630.00
S-FG-TEX-M038-24-X	1.500	38	-24	250 / 76	\$ 787.50	100 / 30	\$ 675.00
S-FG-TEX-M051-32-X	2.000	51	-32	N/A	N/A	100 / 30	\$ 743.00

**For the “X” value in the part number:
use “1” to specify Thin Wall; use “2” to specify Thick Wall**

Thin Wall = 1/16” / 1.59mm • Thick Wall = 1/8” / 3.18mm

Fiberglass Braided Anti-Fray Expandable Heat Treated & Saturated Sleeve - Premium Grade

1200°F / 648°C: Continuous Rating – Higher Temperature for Shorter Periods
 DeltaGlass™ Very High Temperature & Heat Resistant Expandable Sleeve



This Braided fiberglass sleeve is fabricated from high quality type E fiberglass that will not burn and will withstand continuous exposure to temperatures of 1200°F / 648°C. The sleeve is heat treated before being saturated.

This material resists most acids and alkalis and is unaffected by most bleaches and solvents. It is highly flexible and conformable.

The base fiber is manufactured to the specifications of ASTM D-578, ASTM committee D13, and subcommittee D13.18.

The braid angle of this sleeve allows for the sleeve to easily adjust to a range of sizes around its nominal ID – so it can accommodate passing over splices and in-line connectors.

The saturant provides reduced fray when cutting this sleeve, as can be seen by the clean ends of the sleeve in this photo. As well, the sleeve becomes stiffer (notice the sleeve remains tubular and does not collapse under its own weight as it would unsaturated). The sleeve remains highly conformable and flexible even with the saturant; it flexes, bends with the same radius as unsaturated sleeve and curves easily and will not prevent or restrict wiring and cable routing.

1200°F / 648°C continuous rating, high insulation value & excellent personnel protection

Very High Temperature & Heat Resistant Braided Heat Treated Fiberglass with Acrylic Saturated Sleeve Premium Grade				
Part Number		Size Range	Feet / Metres per Spool	Price per Spool
S-FG-B-HT-SAT-M006/010-04/06	¼" / 6mm	1/4" to 3/8"	600 / 182	\$ 690.00
S-FG-B-HT-SAT-M010/013-06/08	3/8" / 10mm	3/8" to 1/2"	400 / 121	\$ 748.00
S-FG-B-HT-SAT-M013/019-08/12	½" / 13mm	1/2" to 3/4"	300 / 91	\$ 891.00
S-FG-B-HT-SAT-M016/025-10/16	5/8" / 16mm	5/8" to 1"	250 / 76	\$ 995.00
S-FG-B-HT-SAT-M019/032-12/20	¾" / 19mm	3/4" to 1 1/4"	250 / 76	\$ 1,332.50
S-FG-B-HT-SAT-M025/044-16/28	1" / 25mm	1" to 1 3/4"	200 / 60	\$ 1,584.00
S-FG-B-HT-SAT-M038/057-24/36	1 ½" / 38mm	1 1/2" to 2 1/4"	150 / 45	\$ 1,828.50
S-FG-B-HT-SAT-M064/102-40/64	2 ½" / 64mm	2 1/2" to 4"	75 / 22	\$ 1,464.75

The addition of an acrylic saturant adds rigidity and abrasive resistance to the sleeve, reducing the likelihood of end fray and results in a sleeve that is easy to apply over long lengths of hose or cable.

The base material temperature rating is 1200°F / 648°C, however the saturant will smoke off at temperatures above 425F / 218°C.

The large braid angle allows for significant expansion of the sleeve resulting in ease of installation, for example, in situations where a hose may have an in-line coupling or adapter to a larger size hose; or similarly where cables may have a splice.

This Product is NOT Available By-The-Foot – Full Spool Only



Fiberglass Braided Sleeve - AWG Wire Gauge Sized - E Glass & S Glass Precision Small Diameter

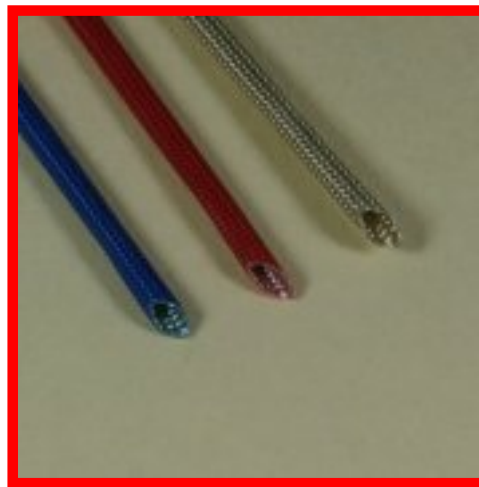
1200°F / 648°C: Continuous Rating – Higher Temperature for Shorter Periods
DeltaGlass™ Very High Temperature & Heat Resistant Insulation with 1375 volts
space factor rating and NEMA TF-2 Section 6.3 flame resistance

S-Glass Precision Small Diameter / NEMA Wall Thickness:
Plain or Heat Treated, Heat Treated with Binders

E-Glass Precision Small Diameter / Heavy Wall:
Heat Treated or Heat Treated with Binders



Left: Standard Wall Thickness
Right: 1/32" Heavy Wall Thickness



Standard Wall Thickness
Heat Treated with Binders

Plain & heat treated sleeve is 1200°F / 648°C continuous, 1742°F / 950°C intermittent.

Sleeve with binders is rated to 600°F / 316°C continuous, 1140°F / 616°C intermittent.

This is a high-strength, high-temperature fiberglass sleeve produced from either S-Glass or E-Glass. S-Glass, which in addition to enhanced dielectric and mechanical properties, provides thermal protection beyond the limits of conventional E-glass fibers. S-Glass is free of boron and will not decompose to form gaseous products with nuclear radiation exposure. Also available heat treated; with Acrylic resin or Oleoresinous binder. Both heat treated and with binders reduces fray and makes cutting easier.

The braiding is tight and dense, providing excellent coverage over small wires, cables, hoses, tubes and pipes.

Properties:

	S Glass	E Glass
Specific Gravity g/cm ³ :	2.48 – 2.49	2.55 - 2.58
Elongation at break, %:	5.3 – 5.7	4.5 - 4.9
Tensile strength, psi @22°C:	650,000 – 700,000	500,000 - 550,000
Water absorbency @22°C, 65% R.H.:	None	None
Space Factor Insulation, volts:	1375	1100 (Std Wall) 1500 (HD wall)

Common Properties:

Good resistance to most acids and alkalis
Unaffected by bleaches and solvents
Excellent resistance to sunlight and aging. Not attacked by Mildew.
Conforms to NEMA TF-2. Fibers conform to MIL-R-60346. Type IV, Class 1.

This product is not stock, it is made to order: Delivery is approximately 15 business days.

**Very High Temperature & Heat Resistant Fiberglass Braided Sleeve
S-Glass Precision Small Diameter / NEMA Wall Thickness: Plain or Heat Treated
with 1375 volts space factor insulation and NEMA TF-2 section 6.3 flame rating**

Part Number	Nominal Size AWG / inch / mm / -dash				Price per Spool		Feet per Spool
					Plain	Heat Treated	
S-FG-S-AWG24-X	24	0.022	0.56	NA	\$ 192.38	\$ 233.46	500'
S-FG-S-AWG22-X	22	0.027	0.69	NA	\$ 207.41	\$ 243.48	500'
S-FG-S-AWG20-X	20	0.034	0.86	NA	\$ 212.42	\$ 253.50	500'
S-FG-S-AWG19-X	19	0.038	0.96	NA	\$ 222.44	\$ 258.51	500'
S-FG-S-AWG18-X	18	0.042	1.07	NA	\$ 237.47	\$ 278.55	500'
S-FG-S-AWG17-X	17	0.047	1.19	NA	\$ 252.50	\$ 298.59	500'
S-FG-S-AWG16-X	16	0.053	1.35	NA	\$ 287.57	\$ 338.67	500'
S-FG-S-AWG15-X	15	0.059	1.50	NA	\$ 322.64	\$ 383.76	500'
S-FG-S-AWG14-X	14	0.066	1.68	-01	\$ 357.71	\$ 418.83	500'
S-FG-S-AWG13-X	13	0.076	1.93	NA	\$ 199.79	\$ 233.92	250'
S-FG-S-AWG12-X	12	0.085	2.16	NA	\$ 214.85	\$ 255.01	250'
S-FG-S-AWG11-X	11	0.095	2.41	NA	\$ 232.92	\$ 275.59	250'
S-FG-S-AWG10-X	10	0.106	2.69	NA	\$ 244.97	\$ 290.55	250'
S-FG-S-AWG9-X	9	0.118	3.10	NA	\$ 269.07	\$ 318.26	250'
S-FG-S-AWG8-X	8	0.133	3.38	-02	\$ 292.16	\$ 348.38	250'
S-FG-S-AWG7-X	7	0.148	3.76	NA	\$ 312.24	\$ 374.48	250'
S-FG-S-AWG6-X	6	0.166	4.22	NA	\$ 203.34	\$ 238.57	150'
S-FG-S-AWG5-X	5	0.186	4.72	-03	\$ 221.46	\$ 264.74	150'
S-FG-S-AWG4-X	4	0.208	5.28	NA	\$ 243.61	\$ 289.91	150'
S-FG-S-AWG3-X	3	0.234	5.94	NA	\$ 276.83	\$ 327.16	150'
S-FG-S-AWG2-X	2	0.263	6.68	-04	\$ 311.06	\$ 367.43	150'
S-FG-S-AWG1-X	1	0.294	7.47	NA	\$ 350.32	\$ 414.74	150'
S-FG-S-05-X	5/16	0.313	7.95	-05	\$ 380.52	\$ 444.94	150'
S-FG-S-AWG0-X	0	0.330	8.38	NA	\$ 407.70	\$ 478.17	150'
S-FG-S-06-X	3/8	0.375	9.52	-06	\$ 767.10	\$ 897.96	150'
S-FG-S-07-X	7/16	0.438	11.12	-07	\$ 618.21	\$ 737.34	100'
S-FG-S-08-X	1/2	0.500	12.70	-08	\$ 786.35	\$ 919.33	100'
S-FG-S-10-X	5/8	0.625	15.87	-10	\$ 942.74	\$ 1104.21	100'
S-FG-S-12-X	3/4	0.750	19.05	-12	\$ 1192.11	\$1239.54	100'
S-FG-S-14-X	7/8	0.875	22.22	-14	\$ 1298.63	\$1519.79	100'
S-FG-S-16-X	1	1.000	25.40	-16	\$ 1530.84	\$1791.54	100'

**For the "X" value in the part number: use "P" to specify Plain
use "HT" to specify Heat Treated**

- See table at end of section for dimensional specifications for this product.
- Plain & Heat Treated sleeve is 1200°F / 648°C continuous, 1742°F / 950°C intermittent.
- This product is available in full coils except as listed below.

By The Foot Pricing:

S-FG-S-AWG16-HT is available at \$3.55 per foot.

S-FG-S-AWG10-HT is available at 5.94 per foot

- **This product is not stock, it is made to order: Delivery is approximately 10 business days.**

Very High Temperature & Heat Resistant Fiberglass Braided Sleeve
S-Glass Precision Small Diameter / NEMA Wall Thickness
with 1375 volts space factor insulation and NEMA TF-2 section 6.3 flame rating
Heat Treated with Binders

Part Number	Nominal Size				Price per Spool	Feet per Spool
	AWG	inch	mm	-dash		
S-FG-S-HTB-AWG24-X	24	0.022	0.56	NA	\$ 255.51	500'
S-FG-S-HTB-AWG22-X	22	0.027	0.69	NA	\$ 270.54	500'
S-FG-S-HTB-AWG20-X	20	0.034	0.86	NA	\$ 275.55	500'
S-FG-S-HTB-AWG19-X	19	0.038	0.96	NA	\$ 290.58	500'
S-FG-S-HTB-AWG18-X	18	0.042	1.07	NA	\$ 305.61	500'
S-FG-S-HTB-AWG17-X	17	0.047	1.19	NA	\$ 335.67	500'
S-FG-S-HTB-AWG16-X	16	0.053	1.35	NA	\$ 375.75	500'
S-FG-S-HTB-AWG15-X	15	0.059	1.50	NA	\$ 415.83	500'
S-FG-S-HTB-AWG14-X	14	0.066	1.68	-01	\$ 460.92	500'
S-FG-S-HTB-AWG13-X	13	0.076	1.93	NA	\$ 257.03	250'
S-FG-S-HTB-AWG12-X	12	0.085	2.16	NA	\$ 275.10	250'
S-FG-S-HTB-AWG11-X	11	0.095	2.41	NA	\$ 300.20	250'
S-FG-S-HTB-AWG10-X	10	0.106	2.69	NA	\$ 320.28	250'
S-FG-S-HTB-AWG9-X	9	0.118	3.10	NA	\$ 350.40	250'
S-FG-S-HTB-AWG8-X	8	0.133	3.38	-02	\$ 377.51	250'
S-FG-S-HTB-AWG7-X	7	0.148	3.76	NA	\$ 410.64	250'
S-FG-S-HTB-AWG6-X	6	0.166	4.22	NA	\$ 264.76	150'
S-FG-S-HTB-AWG5-X	5	0.186	4.72	-03	\$ 289.93	150'
S-FG-S-HTB-AWG4-X	4	0.208	5.28	NA	\$ 316.11	150'
S-FG-S-HTB-AWG3-X	3	0.234	5.94	NA	\$ 358.39	150'
S-FG-S-HTB-AWG2-X	2	0.263	6.68	-04	\$ 405.70	150'
S-FG-S-HTB-AWG1-X	1	0.294	7.47	NA	\$ 459.06	150'
S-FG-S-HTB-05-X	5/16	0.313	7.95	-05	\$ 493.29	150'
S-FG-S-HTB-AWG0-X	0	0.330	8.38	NA	\$ 526.51	150'
S-FG-S-HTB-06-X	3/8	0.375	9.52	-06	\$ 993.62	150'
S-FG-S-HTB-07-X	7/16	0.438	11.12	-07	\$ 815.21	100'
S-FG-S-HTB-08-X	1/2	0.500	12.70	-08	\$ 1017.55	100'
S-FG-S-HTB-10-X	5/8	0.625	15.87	-10	\$ 1221.71	100'
S-FG-S-HTB-12-X	3/4	0.750	19.05	-12	\$ 1546.92	100'
S-FG-S-HTB-14-X	7/8	0.875	22.22	-14	\$ 1683.68	100'
S-FG-S-HTB-16-X	1	1.000	25.40	-16	\$ 1984.17	100'

For the "X" value in the part number:

use "HTA" to specify Heat Treated plus Acrylic Resin Binder

- Resin treated available in white, red, green, brown, yellow, black, blue.

use "HTO" to specify Heat Treated with Oleoresinous Varnish Binder

- See table at the end of this section for dimensional tolerances for this product
- Plain & heat treated sleeve is rated 1200°F / 648°C continuous, 1742°F / 950°C intermittent.
- Sleeve with binders is rated to 600°F / 316°C continuous, 1140°F / 616°C intermittent
- Full spools only.
- **This product is not stock, it is made to order: Delivery is approximately 10 business days.**

Very High Temperature & Heat Resistant Fiberglass Braided Sleeve
E-Glass Precision Small Diameter / Standard Wall Thickness
Heat Treated or Heat Treated with Binders
with NEMA classification & Meets MIL-Y-1140 Class C Form 1
Meets UL 1441 VW-1 Flame Resistance – Will Not Burn

Part Number	Nominal Size AWG / inch / mm / -dash				Price per Spool		Feet per Coil
					Heat Treated	Heat Treated with Binders	
S-FG-E-AWG24-X	24	0.022	0.56	NA	\$ 117.00	\$ 146.25	500'
S-FG-E-AWG22-X	22	0.027	0.69	NA	\$ 120.25	\$ 149.50	500'
S-FG-E-AWG20-X	20	0.034	0.86	NA	\$ 123.63	\$ 152.75	500'
S-FG-E-AWG19-X	19	0.038	0.96	NA	\$ 126.75	\$ 156.00	500'
S-FG-E-AWG18-X	18	0.042	1.07	NA	\$ 130.00	\$ 159.25	500'
S-FG-E-AWG17-X	17	0.047	1.19	NA	\$ 133.25	\$ 162.50	500'
S-FG-E-AWG16-X	16	0.053	1.35	NA	\$ 136.50	\$ 169.00	500'
S-FG-E-AWG15-X	15	0.059	1.50	NA	\$ 143.12	\$ 175.50	500'
S-FG-E-AWG14-X	14	0.066	1.68	-01	\$ 146.25	\$ 182.00	500'
S-FG-E-AWG13-X	13	0.076	1.93	NA	\$ 73.13	\$ 92.62	250'
S-FG-E-AWG12-X	12	0.085	2.16	NA	\$ 74.75	\$ 97.50	250'
S-FG-E-AWG11-X	11	0.095	2.41	NA	\$ 81.25	\$ 107.25	250'
S-FG-E-AWG10-X	10	0.106	2.69	NA	\$ 82.87	\$ 108.87	250'
S-FG-E-AWG9-X	9	0.118	3.10	NA	\$ 89.37	\$ 113.75	250'
S-FG-E-AWG8-X	8	0.133	3.38	-02	\$ 95.87	\$ 126.75	250'
S-FG-E-AWG7-X	7	0.148	3.76	NA	\$ 104.00	\$ 134.87	250'
S-FG-E-AWG6-X	6	0.166	4.22	NA	\$ 68.25	\$ 86.77	150'
S-FG-E-AWG5-X	5	0.186	4.72	-03	\$ 74.10	\$ 94.57	150'
S-FG-E-AWG4-X	4	0.208	5.28	NA	\$ 79.95	\$ 105.30	150'
S-FG-E-AWG3-X	3	0.234	5.94	NA	\$ 92.62	\$ 115.05	150'
S-FG-E-AWG2-X	2	0.263	6.68	-04	\$ 102.37	\$ 133.57	150'
S-FG-E-AWG1-X	1	0.294	7.47	NA	\$ 117.97	\$ 151.12	150'
S-FG-E-05-X	5/16	0.313	7.95	-05	\$ 135.52	\$ 177.45	150'
S-FG-E-AWG0-X	0	0.330	8.38	NA	\$ 163.80	\$ 190.12	150'
S-FG-E-06-X	3/8	0.375	9.52	-06	\$ 193.05	\$ 250.57	150'
S-FG-E-07-X	7/16	0.438	11.12	-07	\$ 145.60	\$ 183.95	100'
S-FG-E-08-X	1/2	0.500	12.70	-08	\$ 155.35	\$ 195.65	100'
S-FG-E-10-X	5/8	0.625	15.87	-10	\$ 167.70	\$ 211.90	100'
S-FG-E-12-X	3/4	0.750	19.05	-12	\$ 206.70	\$ 259.35	100'
S-FG-E-14-X	7/8	0.875	22.22	-14	\$ 228.15	\$ 287.95	100'
S-FG-E-16-X	1	1.000	25.40	-16	\$ 277.55	\$ 349.05	100'

For the "X" value in the part number:

use "HT" to specify Heat Treated

use "HTA" to specify Heat Treated plus Acrylic Resin Binder,

use "HTAF" to specify Heat Treated plus Acrylic Resin Flexible Binder

- Resin treated available in white, red, green, brown, yellow, black, blue.

use "HTO" to specify Heat Treated with Oleoresinous Varnish Binder

Plain & Heat Treated sleeve is 1200°F / 648°C continuous, 1742°F / 950°C intermittent

Sleeve with binders is rated to 600°F / 316°C continuous, 1140°F / 616°C intermittent

See Size Table at the end of this catalog section for dimensional specifications

This Product must be purchased in full coils except as indicated below:

S-FG-E-AWG11-X is available by the foot; \$4.29 per foot

This product is not stock, it is made to order: Delivery is approximately 15 business days.

Very High Temperature & Heat Resistant Fiberglass Braided Sleeve
E-Glass Precision Small Diameter / Heavy Wall (1/32" - .031")
Heat Treated or Heat Treated with Binders
with NEMA classification & Meets MIL-Y-1140 Class C Form 1
Meets UL 1441 VW-1 Flame Resistance – Will Not Burn

Part Number	Nominal Size AWG / inch / mm / -dash				Price per Spool		Feet per Coil
					Heat Treated	Heat Treated with Binders	
S-FG-E-HD-AWG24-X	24	0.022	0.56	NA	\$ 180.00	\$ 225.00	500'
S-FG-E-HD-AWG22-X	22	0.027	0.69	NA	\$ 185.00	\$ 230.00	500'
S-FG-E-HD-AWG20-X	20	0.034	0.86	NA	\$ 195.00	\$ 235.00	500'
S-FG-E-HD-AWG19-X	19	0.038	0.96	NA	\$ 195.00	\$ 240.00	500'
S-FG-E-HD-AWG18-X	18	0.042	1.07	NA	\$ 200.00	\$ 245.00	500'
S-FG-E-HD-AWG17-X	17	0.047	1.19	NA	\$ 205.00	\$ 250.00	500'
S-FG-E-HD-AWG16-X	16	0.053	1.35	NA	\$ 210.00	\$ 260.00	500'
S-FG-E-HD-AWG15-X	15	0.059	1.50	NA	\$ 220.00	\$ 270.00	500'
S-FG-E-HD-AWG14-X	14	0.066	1.68	-01	\$ 225.00	\$ 280.00	500'
S-FG-E-HD-AWG13-X	13	0.076	1.93	NA	\$ 112.50	\$ 142.50	250'
S-FG-E-HD-AWG12-X	12	0.085	2.16	NA	\$ 115.00	\$ 150.00	250'
S-FG-E-HD-AWG11-X	11	0.095	2.41	NA	\$ 125.00	\$ 165.00	250'
S-FG-E-HD-AWG10-X	10	0.106	2.69	NA	\$ 127.50	\$ 167.50	250'
S-FG-E-HD-AWG9-X	9	0.118	3.10	NA	\$ 137.50	\$ 175.00	250'
S-FG-E-HD-AWG8-X	8	0.133	3.38	-02	\$ 147.50	\$ 195.00	250'
S-FG-E-HD-AWG7-X	7	0.148	3.76	NA	\$ 160.00	\$ 207.50	250'
S-FG-E-HD-AWG6-X	6	0.166	4.22	NA	\$ 105.00	\$ 133.50	150'
S-FG-E-HD-AWG5-X	5	0.186	4.72	-03	\$ 114.00	\$ 145.50	150'
S-FG-E-HD-AWG4-X	4	0.208	5.28	NA	\$ 123.00	\$ 162.00	150'
S-FG-E-HD-AWG3-X	3	0.234	5.94	NA	\$ 142.50	\$ 177.00	150'
S-FG-E-HD-AWG2-X	2	0.263	6.68	-04	\$ 157.50	\$ 205.50	150'
S-FG-E-HD-AWG1-X	1	0.294	7.47	NA	\$ 181.50	\$ 232.50	150'
S-FG-E-HD-05-X	5/16	0.313	7.95	-05	\$ 208.50	\$ 273.00	150'
S-FG-E-HD-AWG0-X	0	0.330	8.38	NA	\$ 252.00	\$ 292.50	150'
S-FG-E-HD-06-X	3/8	0.375	9.52	-06	\$ 297.00	\$ 385.50	150'
S-FG-E-HD-07-X	7/16	0.438	11.12	-07	\$ 224.00	\$ 283.00	100'
S-FG-E-HD-08-X	1/2	0.500	12.70	-08	\$ 239.00	\$ 301.00	100'
S-FG-E-HD-10-X	5/8	0.625	15.87	-10	\$ 258.00	\$ 326.00	100'
S-FG-E-HD-12-X	3/4	0.750	19.05	-12	\$ 318.00	\$ 399.00	100'
S-FG-E-HD-14-X	7/8	0.875	22.22	-14	\$ 351.00	\$ 443.00	100'
S-FG-E-HD-16-X	1	1.000	25.40	-16	\$ 427.00	\$ 537.00	100'

For the "X" value in the part number:

use "HT" to specify Heat Treated

use "HTA" to specify Heat Treated plus Acrylic Resin Binder,

use "HTAF" to specify Heat Treated plus Acrylic Resin Flexible Binder

- Resin treated available in white, red, green, brown, yellow, black, blue.

use "HTO" to specify Heat Treated with Oleoresinous Varnish Binder

Plain & heat treated sleeve is 1200°F / 648°C continuous, 1742°F / 950°C intermittent.

Sleeve with binders is rated to 600°F / 316°C continuous, 1140°F / 616°C intermittent

See Size Table at the end of this catalog section for a dimensional specifications

This Product must be purchased in full coils.

This product is not stock, it is made to order: Delivery is approximately 15 business days.

Fiberglass Braided Sleeve - Special Thin Wall .006" & .008".
Plain and with Binders - Precision Premium Grade
1200°F / 648°C: Continuous Rating – Higher Temperature for Shorter Periods
DeltaGlass™ Very High Temperature & Heat Resistant

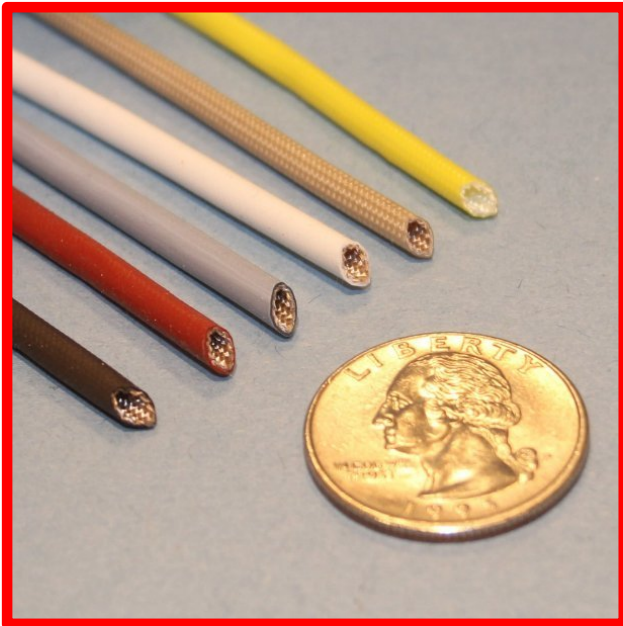
Very High Temperature & Heat Resistant Fiberglass Braided Sleeve Special Thin Wall Thickness: Plain available all sizes; or with Resin Binder up to 1/2" / 12.7mm ID						
Part Number	ID Nominal Size inch / mm / -dash			Price per Spool		Feet per Spool
				.006 wall Plain / Resin	.008 wall Plain / Resin	
S-FG-E-TW-M0016-01-X-Y	1/16 / 0.063	1.68	-01	\$ 102.20 / \$ 137.90	\$ 120.30 / \$ 161.90	1200'
S-FG-E-TW-M003-02-X-Y	1/8 / 0.125	3.17	-02	\$ 176.60 / \$ 212.50	\$ 211.00 / \$ 252.40	1200'
S-FG-E-TW-M005-03-X-Y	3/16 / 0.188	4.76	-03	\$ 196.60 / \$ 228.30	\$ 264.30 / \$ 315.50	1200'
S-FG-E-TW-M006-04-X-Y	1/4 / 0.250	6.35	-04	\$ 236.60 / \$ 274.10	\$ 292.10 / \$ 330.60	1200'
S-FG-E-TW-M008-05-X-Y	5/16 / 0.313	7.93	-05	\$ 144.95 / \$ 163.15	\$ 184.75 / \$ 219.15	600'
S-FG-E-TW-M010-06-X-Y	3/8 / 0.375	9.52	-06	\$ 177.25 / \$ 197.55	\$ 223.30 / \$ 277.20	600'
S-FG-E-TW-M011-07-X-Y	7/16 / 0.438	11.11	-07	\$ 191.30 / N/A	\$ 254.00 / N/A	600'
S-FG-E-TW-M013-08-X-Y	1/2 / 0.500	12.7	-08	\$ 210.45 / \$ 234.05	\$ 278.90 / \$ 320.75	600'
Sizes Below Not Available in .006" wall or with Resin Binder						
S-FG-E-TW-M016-10-8	5/8 / 0.625	15.87	-10	N/A	\$ 191.12 / N/A	300'
S-FG-E-TW-M019-12-8	3/4 / 0.750	19.05	-12	N/A	\$ 208.15 / N/A	300'
S-FG-E-TW-M022-14-8	7/8 / 0.875	22.22	-14	N/A	\$ 230.83 / N/A	300'
S-FG-E-TW-M025-16-8	1 / 1.000	25.4	-16	N/A	\$ 277.25 / N/A	300'
S-FG-E-TW-M032-20-8	1 1/4 / 1.250	31.75	-20	N/A	\$ 297.37 / N/A	300'
S-FG-E TW-M038-24-8	1 1/2 / 1.500	38.1	-24	N/A	\$ 326.02 / N/A	300'

For the "X" value in the part number: use "8" to specify .008" wall
use "6" to specify .006" wall

For the "Y" value in the part number: use "P" to specify Plain
use "B" to specify with Binder

- Plain sleeve is 1200°F / 648°C continuous, 1742°F / 950°C intermittent.
- Sleeve with binders is rated to 600°F / 316°C continuous, 1140°F / 616°C intermittent.
- This product is available in full coils only.
- Resin treated available in white, red, green, brown, yellow, black, blue.
- This is not a stock item: approximately 10 business days to manufacture to order.

Acrylic Coated Fiberglass Sleeve - Flexible - AWG Small Diameter
311°F / 155°C: High Temperature, Heat & Flame Resistant – UL & CSA Recognized
Available meeting NEMA Grade F-A-1, F-B-1, F-C-1, F-C-2 & F-C-3



Designed as a primary insulation sleeve for protecting small diameter wire. Recognized by UL and CSA for 155°C, 600 volt service, and complies with VW-1 flammability requirements. Conforms to, and is listed on the QPL for MIL-I-3190/9. Available in 3 grades: NEMA Grade A-1, B-1 and C-1.

Extremely flexible and easily installed. Used in electrical apparatus such as electric motors, transformers, generators, home appliances, lighting fixtures, instrument circuits and controls, switchgear, breaker panels, welding equipment.

The inner braid is very fine and tightly woven, and along with the acrylic coating, this is a tough and flexible sleeve for wire protection.

Available in all standard AWG wire sizes (see end of this section for dimensions and tolerances).

Available in 10 Colors

Property

Procedure

Performance

Physical

Tensile Strength, Coating
 Ultimate Elongation, Coating
 Tear Strength, Coating
 Flexibility & Toughness, Coating

ASTM-D412
 ASTM-D412
 ASTM-D624
 UL 1441

850 psi
 150% @ 20°C
 60 psi
 Passes Penetration Test

Chemical

Oil & Solvent* Resistance
 Resistance to Acids and Alkalis
 Corrosion Resistance

MIL-I-3190/9
 -

Passes (good)
 Good
 Good. Contains no chlorine or other materials contributing to electrolyte formation

Compatibility

UL 1446

Good. Compatible with modified polyester, acrylic, epoxy, phenolic and formvar wire enamels.

Electrical

Dielectric Strength: after 48/23/50

Grade A
 Grade B
 Grade C-1
 Grade C-2
 Grade C-3

NEMA TF-1
 NEMA TF-1
 NEMA TF-1
 NEMA TF-1
 NEMA TF-1

7000V min avg., 5000v min individual
 4000v min. Avg., 2500v min. Individ.
 2500v min. Avg., 1500v min.indiv.
 1500v min. Avg., 800v min.indiv.
 no voltage guarantee

after 96/23/96, Grade A

NEMA TF-1

50% of Original Value

Hydrolytic Stability after 336 hrs
 @ 70°C over Constant Water Reflex

MIL-I-3190/9

1500 volts min. avg

Thermal

Thermal Endurance
 Brittleness Temperature
 Flame Resistance

MIL-I-3190/9 & UL 1441
 ASTM-D350
 UL 1441
 ASTM-D350, Method B
 NEMA TF-1
 MIL-I-3190/9, Method B

Class 155°C (F)
 -25°C
 Passes (VW-1), Grade C3 only
 Passes
 Passes
 Passes

Pushback

MIL-I-3190/9

No cracks or ruptures, 6000V min avg
 breakdown strength

Resistance to potting temperature

MIL-I-3190/3

No blisters, flow or cracks visible after 15 min @ 225C

This product is not usually stock, it is made to order: Delivery is approximately 10 business days.

Acrylic Coated Fiberglass Sleeve - Flexible - AWG Small Diameter
311°F / 155°C: High Temperature, Heat & Flame Resistant – UL & CSA Recognized
Available meeting NEMA Grade F-A-1, F-B-1, F-C-1, F-C-2 & F-C-3
Primary Insulation Coated Fiberglass Sleeve for
Wire Protection, NEMA Grade A-1/B-1/C-1/C-2/C-3 classified

High Temperature - Small Diameter – Acrylic Coated Fiberglass Sleeve with UL/CSA rating and NEMA Grade F-A-1 / F-B-1 / F-C-1 – F-C-2 – F-C-3 Classification										
Part Number	Nominal ID				Feet per Spool	Price per 100 feet				
	AWG / Inches / mm / -dash					F-A-1	F-B-1	F-C-1	F-C-2	F-C-3
S-FG-ACR-AWG24-X-Y	24	0.022	0.56		500*	\$ 49.60	45.52	39.27	34.60	28.22
S-FG-ACR-AWG22-X-Y	22	0.027	0.69		500*	\$ 50.75	46.87	43.00	35.65	29.87
S-FG-ACR-AWG20-X-Y	20	0.034	0.86		500*	\$ 54.27	47.72	43.35	36.20	30.67
S-FG-ACR-AWG19-X-Y	19	0.038	0.96		500*	\$ 54.51	48.69	44.12	37.35	30.97
S-FG-ACR-AWG18-X-Y	18	0.042	1.07		500*	\$ 54.87	49.60	44.62	38.39	31.37
S-FG-ACR-AWG17-X-Y	17	0.047	1.19		500*	\$ 55.07	50.40	44.97	39.44	31.97
S-FG-ACR-AWG16-X-Y	16	0.053	1.35		500*	\$ 55.92	50.75	45.52	40.00	32.65
S-FG-ACR-AWG15-X-Y	15	0.059	1.50		500*	\$ 57.60	53.67	46.87	40.80	33.45
S-FG-ACR-AWG14-X-Y	14	0.066	1.68	-01	500*	\$ 57.85	54.27	47.10	43.00	34.12
S-FG-ACR-AWG13-X-Y	13	0.076	1.93		250*	\$ 64.12	56.47	50.40	44.12	34.60
S-FG-ACR-AWG12-X-Y	12	0.085	2.16		250*	\$ 65.52	57.85	50.75	45.17	34.80
S-FG-ACR-AWG11-X-Y	11	0.095	2.41		250*	\$ 67.45	62.72	55.07	47.10	38.90
S-FG-ACR-AWG10-X-Y	10	0.106	2.69		250*	\$ 74.50	65.80	57.60	50.40	40.00
S-FG-ACR-AWG9-X-Y	9	0.118	3.10		250*	\$ 77.85	67.70	58.10	53.67	43.00
S-FG-ACR-AWG8-X-Y	8	0.133	3.38	-02	250*	\$ 83.05	74.50	64.42	56.47	45.52
S-FG-ACR-AWG7-X-Y	7	0.148	3.76		250*	\$ 87.20	78.12	67.70	58.10	46.87
S-FG-ACR-AWG6-X-Y	6	0.166	4.22		150*	\$ 95.37	83.55	72.37	64.12	50.40
S-FG-ACR-AWG5-X-Y	5	0.186	4.72	-03	150*	\$ 105.27	92.90	78.37	74.50	58.10
S-FG-ACR-AWG4-X-Y	4	0.208	5.28		150*	\$ 126.60	111.52	93.75	82.80	65.52
S-FG-ACR-AWG3-X-Y	3	0.234	5.94		150*	\$ 141.35	121.97	103.92	91.25	73.17
S-FG-ACR-AWG2-X-Y	2	0.263	6.68	-04	150*	\$ 159.20	138.72	118.37	104.97	83.55
S-FG-ACR-AWG1-X-Y	1	0.294	7.47		150*	\$ 181.72	157.85	132.90	119.47	95.67
S-FG-ACR-05-X-Y	5/16	0.313	7.95	-05	150*	\$ 205.57	179.27	153.22	133.45	106.90
S-FG-ACR-AWG0-X-Y	0	0.330	8.38		150	\$ 213.22	185.52	158.05	139.52	111.82
S-FG-ACR-06-X-Y	3/8	0.375	9.52	-06	150	\$ 296.72	260.32	225.00	191.00	152.15
S-FG-ACR-07-X-Y	7/16	0.438	11.12	-07	100	\$ 392.45	343.90	296.72	254.87	204.17
S-FG-ACR-08-X-Y	1/2	0.500	12.70	-08	100	\$ 455.42	421.12	388.25	331.25	265.02
S-FG-ACR-10-X-Y	5/8	0.625	15.87	-10	100	\$ 560.40	526.95	491.05	417.85	334.60
S-FG-ACR-12-X-Y	3/4	0.750	19.05	-12	100	\$ 674.65	639.87	597.12	545.07	436.82
S-FG-ACR-14-X-Y	7/8	0.875	22.22	-14	100	\$ 824.30	779.02	735.25	665.90	534.05
S-FG-ACR-16-X-Y	1	1.000	25.40	-16	100	\$ 1010.15	955.52	886.20	804.87	645.57
S-FG-ACR-18-X-Y	1 1/8	1.125	28.57	-18	100	\$ 1215.87	1147.92	1066.75	964.55	892.55
S-FG-ACR-20-X-Y	1 1/4	1.250	31.75	-20	100	\$ 1416.45	1334.55	1238.92	1120.25	1036.65
S-FG-ACR-22-X-Y	1 3/8	1.375	34.92	-22	3**	\$ 1559.75	1468.45	1362.20	1232.00	1141.30
S-FG-ACR-23-X-Y	1 7/16	1.437	36.49	-23	3**	\$ 1655.37	1557.55	1443.80	1307.67	1210.05
S-FG-ACR-24-X-Y	1 1/2	1.500	38.10	-24	3**	\$ 1704.97	1602.05	1487.20	1346.32	1244.35
S-FG-ACR-26-X-Y	1 5/8	1.625	41.27	-26	3**	\$ 1756.17	1651.80	1531.52	1386.05	1281.97
S-FG-ACR-28-X-Y	1 3/4	1.750	44.45	-28	3**	\$ 1822.02	1713.22	1281.97	1587.45	1436.45
S-FG-ACR-30-X-Y	1 7/8	1.875	47.62	-30	3**	\$ 2131.42	2004.25	1857.07	1681.65	1557.27
S-FG-ACR-32-X-Y	2	2.000	50.80	-32	3**	\$ 2508.47	2345.92	2176.30	1968.35	1821.67

For 1000 to 4999 feet -10% / For 5000 feet or more -17%

See end of section 1 for a table of pre-coated dimensional specifications for this product

For the "X" value in the part number, specify "S" for standard flexibility or "F" for enhanced flexibility.

For the "Y" value in the part number, specify color

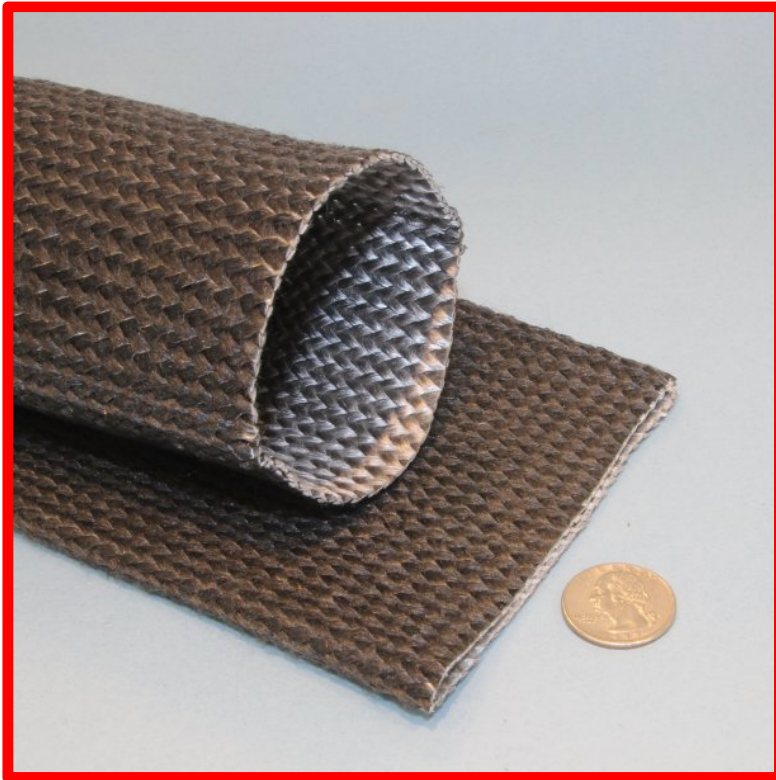
This product is available in full coils only.

This product is not stock, it is made to order: Delivery is approximately 15 business days.

* Longer Spool Lengths Available. ** Minimum order 30 pieces



Braided Fiberglass Vehicle Truck Engine Exhaust Pipe Sleeve
1200°F / 648°C: Continuous Rating – Higher Temperature for Shorter Periods
BlackMax™ High Temperature & Heat Resistant



- 1/16" wall thickness
- Acrylic saturant added for enhanced ease of handling and anti-fray

Designed as a protection sleeve for truck & generator engine exhaust piping.

Easy to cut and maintains its end shape for ease of installation. Easily secured with stainless clamps.

Black color hides dirt and grime contamination.

Protects Personnel from incidental contact burns.

Helps prevent fires due to spray from ruptured hydraulic or fuel supply lines contacting hot exhaust metal directly.

1200°F / 648°C continuous rating, high insulation value & excellent personnel protection

Very High-Temperature Braided Saturated Sleeve with Acrylic Saturant – Exhaust Pipe Protection Sleeve				
Part Number	Size			Price per foot
	in	mm	-dash	
S-FG-BM-EX-M102-64	4.000	102	-64	\$ 15.36
S-FG-BM-EX-M114-72	4.500	114	-72	\$ 17.65
S-FG-BM-EX-M127-80	5.000	127	-80	\$ 19.64

This Product is Available By The Foot



Braided Fiberglass Sleeve with Graphite Impregnation
1200°F / 648°C: Continuous Rating – Higher Temperature for Shorter Periods
DeltaGlass™: High Temperature & Heat Resistant



- 1/16” and 1/8” wall thickness
- Graphite Impregnation

Graphite adds lubrication to result in a very slippery sleeve but does not add electrical conductivity.

Resists molten splash and weld splatter as it cannot stick to the graphite.

1200°F / 648°C continuous rating, high insulation value & excellent personnel protection

Very High-Temperature Braided Sleeve with Graphite Coating						
Part Number	Size			Feet per Spool Thin wall / Thick wall	Price / foot Thin wall Graphite	Price / foot Thick wall Graphite
	in / mm / -dash					
S-FG-GC-M006-04-X	.250	6	-04	1400 / 700	\$ 2.32	\$ 4.56
S-FG-GC-M010-06-X	.375	10	-06	1400 / 600	\$ 2.60	\$ 5.08
S-FG-GC-M013-08-X	.500	13	-08	1000 / 330	\$ 3.76	\$ 8.60
S-FG-GC-M016-10-X	.625	16	-10	900 / 315	\$ 4.20	\$ 9.20
S-FG-GC-M019-12-X	.750	19	-12	750 / 300	\$ 4.80	\$ 9.36
S-FG-GC-M022-14-X	.875	22	-14	650 / 300	\$ 5.44	\$ 9.44
S-FG-GC-M025-16-X	1.000	25	-16	500 / 290	\$ 6.64	\$ 9.72
S-FG-GC-M032-20-X	1.250	32	-20	450 / 280	\$ 7.76	\$ 11.08
S-FG-GC-M038-24-X	1.500	38	-24	350 / 225	\$ 9.56	\$ 13.08
S-FG-GC-M041-26-X	1.625	41	-26	300 / 208	\$ 9.61	\$ 13.36
S-FG-GC-M044-28-X	1.750	44	-28	300 / 208	\$ 10.12	\$ 13.84
S-FG-GC-M051-32-X	2.000	51	-32	250 / 190	\$ 12.48	\$ 18.68
S-FG-GC-M057-36-X	2.250	57	-36	250 / 190	\$ 12.61	\$ 19.02
S-FG-GC-M064-40-X	2.500	64	-40	225 / 180	\$ 14.84	\$ 20.28
S-FG-GC-M070-44-X	2.750	70	-44	225 / 180	\$ 15.17	\$ 21.55
S-FG-GC-M076-48-X	3.000	76	-48	200 / 175	\$ 15.96	\$ 25.40
S-FG-GC-M083-52-X	3.250	83	-52	200 / 175	\$ 16.67	\$ 26.31
S-FG-GC-M089-56-X	3.500	89	-56	190 / 170	\$ 17.80	\$ 27.44
S-FG-GC-M095-60-X	3.750	95	-60	190 / 170	\$ 18.97	\$ 28.99
S-FG-GC-M102-64-X	4.000	102	-64	175 / 140	\$ 21.36	\$ 31.16
S-FG-GC-M114-72-X	4.500	114	-72	175 / 140	\$ 27.65	\$ 40.73
S-FG-GC-M127-80-X	5.000	127	-80	120 / 100	\$ 35.64	\$ 52.44

For the “X” value, use “1” to specify Thin Wall; use “2” to specify Thick Wall

Thin Wall = 1/16” / 1.59mm • Thick Wall = 1/8” / 3.18mm

This Product is Available By The Foot

Basalt Fiber Knitted Conformable Engine Exhaust Pipe Insulation Sleeve

1382°F / 750°C: ExhaustSock™



High Temperature & Heat Resistant Sleeve



- Helps maintain exhaust gas temperatures in order to meet regulatory requirements.
- Knitted design allows for high conformability.
- Can be fabricated with apertures to accommodate brackets and mounting pads.
- Available in pre-cut or continuous lengths.
- Expandable and durable – provides ease of installation.
- Conforms to bends, elbows, flex sections and flanges.
- Suitable for Fixed Generators, Marine Engines and Generators, Automotive, Truck, Bus, Construction and Mining equipment.

Parameter	Test Method	Result
Thermal conductivity		0.031-0.038 W/mK
Thermal Endurance	BH 100-521	Pass - No degradation
Cold/Wet Endurance	BH 100-522	Pass - No degradation
Thermal Containment	BH 100-509	(See table below)
Flammability	SAE J369 /	No ignition
Flammability	D45133 Type A	No ignition
Flammability with Oil Contamination	BH 100-524 (ref. SAE J369)	Self-extinguishing
Vibration	ASTM D4728	Pass - No degradation
Fluid Resistance (bullet list below)	BH100-003F	No degradation or loss of flexibility

<ul style="list-style-type: none"> • 50/50 Antifreeze/Distilled Water • Transmission Fluid • ASTM Reference Fuel C • Brake Fluid SAE RM-66 • Windshield Washer Fluid 	<ul style="list-style-type: none"> • 5% NaCl • Diesel Fluid LSRD-4 • SAE 5W30 • Power Steering Fluid • Salt Spray ASTM G85 Pass
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Thermal Containment Test per BH100-509 on ExhaustSock™ Sleeve

3.5" (89mm) Exhaust Pipe Parameters

Inlet Gas	828°C	Thermal Containment	251°C
Inlet Pipe Surface	534°C	Temperature at 20mm from sleeve (ambient)	121°C
Pipe	552°C	Temperature at 30mm from sleeve (ambient)	100°C
Sleeve	301°C	Temperature at 100mm from sleeve (ambient)	81°C

Very High-Temperature Knitted Rock Fiber Sleeve For Exhaust Pipe Protection						
Part Number	ID Size			Feet per Box	Price per Box	Cut Length Price per foot
	in / mm / -dash					
S-BRF-KNIT-1.00-M025-16	1.00	25	-16	500	\$ 3570.00	\$ 14.28
S-BRF-KNIT-1.50-M038-24	1.50	38	-24	300	\$ 2262.00	\$ 15.08
S-BRF-KNIT-2.00-M051-32	2.00	51	-32	250	\$ 2725.00	\$ 21.80
S-BRF-KNIT-2.50-M064-40	2.50	64	-40	225	\$ 2765.25	\$ 24.58
S-BRF-KNIT-3.00-M076-48	3.00	76	-48	200	\$ 2904.00	\$ 29.04
S-BRF-KNIT-3.50-M089-56	3.50	89	-56	175	\$ 2710.75	\$ 30.98
S-BRF-KNIT-4.00-M102-64	4.00	102	-64	164	\$ 2884.76	\$ 35.18
S-BRF-KNIT-5.00-M127-80	5.00	127	-80	125	\$ 2792.50	\$ 44.68

MINIMUM ORDER IS \$600.00

Braided Carbon Fiber Sleeve

1000°F / 537°C: Continuous Rating – Higher Temperature for Shorter Periods

High Temperature & Heat Resistant



Available in 0.013", 0.020" and 0.030" wall thickness.

Used to fabricate tubular structures that are lightweight and strong.

The cut ends will fray – standard anti-fray techniques can be used such as metal wire or clamps.

FlameShield™ High Temperature & Heat Resistant Carbon Fiber Sleeve					
Part Number	Nominal ID	Size Range	Spool Length in feet Bulk / Small	Price per Spool Bulk Spool / Small Spool	
Light Wall 0.013" replace "X" in part number with "LW"					
S-CF-M006-04-X	1/4" / 6 mm	1/8" to 5/16"	500 / 100	\$ 635.00 / \$ 168.00	
S-CF-M013-08-X	1/2" / 13 mm	1/4" to 5/8"	250 / 50	\$ 631.25 / \$ 168.00	
S-CF-M019-12-X	3/4" / 19 mm	5/16" to 7/8"	250 / 50	\$ 1,016.25 / \$ 258.00	
S-CF-M025-16-X	1" / 25 mm	3/8" to 1 1/16"	200 / 50	\$ 1,016.50 / \$ 321.00	
S-CF-M032-20-X	1 1/4" / 32 mm	1/2" to 1 1/2"	125 / 25	\$ 763.13 / \$ 198.00	
S-CF-M038-24-X	1 1/2" / 38 mm	5/8" to 1 3/4"	100 / 25	\$ 762.25 / \$ 243.00	
S-CF-M051-32-X	2" / 51 mm	3/4" to 2 3/16"	100 / 25	\$ 915.50 / \$ 291.00	
Medium Wall 0.020" replace "X" in part number with "MW"					
S-CF-M013-08-X	1/2" / 13 mm	1/4" to 5/8"	250 / 50	\$ 739.37 / \$ 192.00	
S-CF-M019-12-X	3/4" / 19 mm	5/16" to 7/8"	250 / 50	\$ 1,110.63 / \$ 282.00	
S-CF-M025-16-X	1" / 25 mm	7/16" to 1 1/16"	200 / 50	\$ 1,184.50 / \$ 369.00	
S-CF-M032-20-X	1 1/4" / 32 mm	9/16" to 1 1/2"	125 / 25	\$ 925.94 / \$ 237.00	
S-CF-M038-24-X	1 1/2" / 38 mm	3/4" to 1 3/4"	100 / 25	\$ 888.25 / \$ 282.00	
S-CF-M051-32-X	2" / 51 mm	7/8" to 2 3/16"	100 / 25	\$ 1,109.25 / \$ 348.00	
S-CF-M064-40-X	2 1/2" / 64 mm	1 1/16" to 3"	100 / 25	\$ 1,332.50 / \$ 414.00	
Heavy Wall 0.030" replace "X" in part number with "HW"					
S-CF-M019-12-X	3/4" / 19 mm	3/8" to 7/8"	250 / 50	\$ 1,362.50 / \$ 342.00	
S-CF-M025-16-X	1" / 25 mm	1/2" to 1 1/16"	200 / 50	\$ 1,450.00 / \$ 450.00	
S-CF-M032-20-X	1 1/4" / 32 mm	11/16" to 1 1/2"	125 / 25	\$ 1,209.38 / \$ 306.00	
S-CF-M038-24-X	1 1/2" / 38 mm	13/16" to 1 3/4"	100 / 25	\$ 1,090.00 / \$ 342.00	
S-CF-M051-32-X	2" / 51 mm	1" to 2 3/16"	100 / 25	\$ 1,450.00 / \$ 450.00	
S-CF-M064-40-X	2 1/2" / 64 mm	1 1/4" to 3"	100 / 25	\$ 1,820.00 / \$ 561.00	
S-CF-M076-48-X	3" / 76 mm	1 1/2" to 3 1/2"	50 / 25	\$ 1,088.75 / \$ 669.00	

**For the "X" value:
use "B" for Bulk Spool size, use "S" for Small Spool size**

Braided Fiberglass Sleeve with Vermiculite Coating: Premium Grade.
1500°F / 815°C: Continuous Rating – Higher Temperature for Shorter Periods
FlameShield™ 1500 Very High Temperature & Heat Resistant Sleeve



Effective thermal protection for wires, cables and hoses.

FlameShield™ braided fiberglass sleeve with specialty coating of Vermiculite.

- Available in thin wall (1/16 in. / 1.6mm.) and thick wall (1/8 in. / 3.18mm.).
- 1500°F / 815°C continuous exposure with excursion to 2000°F / 1093°C.
- Vermiculite adds Fire resistance, Anti-Fray and improved abrasion resistance.
- Certified to meet the requirements of ASTM E 162, ASTM E 662 & SMP 800-C.

Braided Fiberglass Sleeve with Vermiculite Coating: Premium Grade. (Continued)
1500°F / 815°C: Continuous Rating – Higher Temperature for Shorter Periods
FlameShield™ 1500 Very High Temperature & Heat Resistant Sleeve



1500°F / 815°C continuous rating, high insulation value & excellent personnel protection

The Vermiculite coating adds abrasion resistance and higher temperature capabilities which makes this sleeve a good insulator for hose, cable and copper or aluminum tubing. Meets Federal Railroad Administration requirements for surface flammability and rate of smoke generation.

FlameShield™ Very High Temperature & Heat Resistant Braided Vermiculite Coated Fiberglass Sleeve: Premium Grade						
Part Number	Size in / mm / -dash			Feet – Metres per Spool Thin wall / Thick wall	Price per foot / metre Thin wall 1/16"	Price per foot / metre Thick wall 1/8"
S-FG-VC-M006-04-X	.250	6	-04	1400 - 426 / 700 - 213	\$ 0.84 / \$ 2.76	\$ 1.68 / \$ 5.51
S-FG-VC-M010-06-X	.375	10	-06	1400 - 426 / 600 - 182	\$ 0.96 / \$ 3.15	\$ 1.88 / \$ 6.17
S-FG-VC-M013-08-X	.500	13	-08	1000 - 304 / 330 - 100	\$ 1.40 / \$ 4.59	\$ 3.16 / \$ 10.37
S-FG-VC-M016-10-X	.625	16	-10	900 - 274 / 315 - 96	\$ 1.52 / \$ 4.98	\$ 3.40 / \$ 11.15
S-FG-VC-M019-12-X	.750	19	-12	750 - 228 / 300 - 91	\$ 1.76 / \$ 5.77	\$ 3.44 / \$ 11.29
S-FG-VC-M022-14-X	.875	22	-14	650 - 198 / 300 - 91	\$ 2.00 / \$ 6.56	\$ 3.48 / \$ 11.42
S-FG-VC-M025-16-X	1.000	25	-16	500 - 152 / 290 - 88	\$ 2.44 / \$ 8.01	\$ 3.56 / \$ 11.68
S-FG-VC-M032-20-X	1.250	32	-20	450 - 137 / 280 - 85	\$ 2.88 / \$ 9.45	\$ 4.08 / \$ 13.39
S-FG-VC-M038-24-X	1.500	38	-24	350 - 106 / 225 - 68	\$ 3.52 / \$ 11.55	\$ 4.80 / \$ 15.75
S-FG-VC-M041-26-X	1.625	41	-26	300 - 91 / 208 - 63	\$ 3.61 / \$ 11.84	\$ 4.86 / \$ 15.94
S-FG-VC-M044-28-X	1.750	44	-28	300 - 91 / 208 - 63	\$ 3.72 / \$ 12.20	\$ 5.08 / \$ 16.67
S-FG-VC-M051-32-X	2.000	51	-32	250 - 76 / 190 - 57	\$ 4.60 / \$ 15.09	\$ 6.88 / \$ 22.57
S-FG-VC-M057-36-X	2.250	57	-36	250 - 76 / 190 - 57	\$ 4.97 / \$ 16.31	\$ 7.04 / \$ 23.10
S-FG-VC-M064-40-X	2.500	64	-40	225 - 68 / 180 - 54	\$ 5.48 / \$ 17.98	\$ 7.48 / \$ 24.54
S-FG-VC-M070-44-X	2.750	70	-44	225 - 68 / 180 - 54	\$ 5.56 / \$ 18.24	\$ 7.88 / \$ 25.85
S-FG-VC-M076-48-X	3.000	76	-48	200 - 60 / 175 - 53	\$ 5.88 / \$ 19.29	\$ 9.40 / \$ 30.84
S-FG-VC-M083-52-X	3.250	83	-52	200 - 60 / 175 - 53	\$ 6.03 / \$ 19.78	\$ 9.65 / \$ 31.66
S-FG-VC-M089-56-X	3.500	89	-56	190 - 57 / 170 - 51	\$ 6.56 / \$ 21.52	\$ 10.08 / \$ 33.07
S-FG-VC-M095-60-X	3.750	95	-60	190 - 57 / 170 - 51	\$ 7.05 / \$ 23.13	\$ 10.88 / \$ 35.69
S-FG-VC-M102-64-X	4.000	102	-64	175 - 53 / 140 - 42	\$ 7.92 / \$ 25.98	\$ 11.48 / \$ 37.66
S-FG-VC-M114-72-X	4.500	114	-72	175 - 53 / 140 - 42	N/A	\$ 14.49 / \$ 47.54
S-FG-VC-M127-80-X	5.000	127	-80	120 - 36 / 100 - 30	N/A	\$ 19.32 / \$ 63.39

For the "X" value in the p/n: use "1" to specify Thin Wall; use "2" to specify Thick Wall

This Product is Available By-The-Foot.

Minimum Order for less than 1" ID is 20 feet. Minimum order for 1" ID and larger is 10 feet.

Braided Fiberglass High Bulk Texturized Sleeve with Vermiculite Coating: Premium Grade

1500°F / 815°C: Continuous Rating – Higher Temperature for Shorter Periods
FlameShield™ 1500 TEX High Temperature & Heat Resistant



- FlameShield™ Braided High Bulk Texturized Premium Sleeve.
- Highest Insulation Value Sleeve Available.
- Available in Thin Wall (1/16”) and Thick Wall (1/8”).
- Texturization provides high bulk & high thermal insulation value.
- Certified to meet the requirements of ASTM E 162, ASTM E 662 & SMP 800-C.
- Vermiculite adds fire resistance, anti-fray and improved abrasion resistance.

This braided sleeve is fabricated from high quality type E fiberglass that will not burn and will withstand continuous exposure to temperatures of 1200°F / 648°C.

This material resists most acids and alkalis and is unaffected by most bleaches and solvents. It is highly flexible and conformable. The base fiber is manufactured to the specifications of ASTM D-578, ASTM committee D13, and subcommittee D13.18.

Available Plain and Vermiculite Coated.

1500°F / 815°C continuous rating, high insulation value & excellent personnel protection

MaxSleeve™ High Bulk Texturized Braided Fiberglass Sleeve With Vermiculite Coating - Premium Grade

Part Number	Size inch / mm / -dash			Thin Wall		Thick Wall	
				Feet / Metres per spool	Price per Spool	Feet / Metres per spool	Price per Spool
S-FG-TEXVC-M010-06-X	.375	10	-6	N/A	N/A	250 / 76	\$ 1217.50
S-FG-TEXVC-M013-08-X	.500	13	-8	500 / 152	\$ 1740.00	250 / 76	\$ 1287.50
S-FG-TEXVC-M016-10-X	.625	16	-10	N/A	N/A	100 / 30	\$ 695.00
S-FG-TEXVC-M019-12-X	.750	19	-12	250 / 76	\$ 1087.50	100 / 30	\$ 740.00
S-FG-TEXVC-M025-16-X	1.000	25	-16	250 / 76	\$ 1175.00	100 / 30	\$ 785.00
S-FG-TEXVC-M032-20-X	1.250	32	-20	N/A	N/A	100 / 30	\$ 830.00
S-FG-TEXVC-M038-24-X	1.500	38	-24	250 / 76	\$ 1287.50	100 / 30	\$ 875.00
S-FG-TEXVC-M051-32-X	2.000	51	-32	N/A	N/A	100 / 30	\$ 943.00

For the “X” value in the part number:
use “1” to specify Thin Wall; use “2” to specify Thick Wall

Thin Wall = 1/16” / 1.59mm • Thick Wall = 1/8” / 3.18mm

Weld Splatter Protection Sleeve with Velcro® Hook & Loop Closure Scuff-Sleeve™ VC Weld Shield



- Specialty protection for hoses, wire and cables.
- Sleeve with Velcro for easy retrofit.

FG/WeldShield sleeve is fiberglass base material with a neoprene rubber coating. Temperature range -60°F to +500°F with weld splatter protection. Very good UV protection.

FG/Carbon Fiber sleeve is fabricated with a fiberglass core and carbon fiber felt. Excellent for weld protection, hot tar, foundry and turbo exhaust. Temperature range -60°F to +1800F. Metal thread and fastener construction. Excellent UV protection.

Sold in 25 foot increments up to 150 feet continuous rolls, except FG/CarbonFiber which has a 50 foot maximum roll length. Available in standard sizes; larger or custom sizes can be easily fabricated if required. Helps to organize and bundle hoses and cables.

Scuff-Sleeve™ VC: Weld Splatter Specialty Protection Sleeve					
Part Number	Size inch / mm / -dash			Price per Foot	
				FG/WeldShield A	FG/CarbonFiber B
*S-WPS-VCL-M025-16-X	1.00	25	-16	\$ 10.20	\$ 19.20
*S-WPS-VCL-M038-24-X	1.50	38	-24	\$ 13.36	N/A
S-WPS-VCL-M051-32-X	2.00	51	-32	\$ 13.52	\$ 24.20
S-WPS-VCL-M060-38-X	2.38	60	-38	\$ 14.80	N/A
S-WPS-VCL-M064-40-X	2.50	64	-40	N/A	N/A
S-WPS-VCL-M070-44-X	2.75	70	-44	\$ 16.12	N/A
S-WPS-VCL-M076-48-X	3.00	76	-48	\$ 16.56	\$ 29.16
S-WPS-VCL-M083-52-X	3.25	83	-52	\$ 18.76	N/A
S-WPS-VCL-M089-56-X	3.50	89	-56	\$ 19.66	N/A
S-WPS-VCL-M102-64-X	4.00	102	-64	\$ 19.83	\$ 30.97
S-WPS-VCL-M114-72-X	4.50	114	-72	\$ 26.28	\$ 32.43
S-WPS-VCL-M127-80-X	5.00	127	-80	\$ 27.74	\$ 34.12
S-WPS-VCL-M152-96-X	6.00	152	-96	\$ 28.31	\$ 35.76
S-WPS-VCL-M178-112-X	7.00	165	-104	\$ 34.44	\$ 46.20
S-WPS-VCL-M203-128-X	8.00	203	-128	\$ 35.87	\$ 54.33
S-WPS-VCL-M305-192-X	12.00	305	-192	\$ 55.63	N/A

For the "X" value in the part number:
specify "A" for FG/WeldShield and "B" for FG/CarbonFiber

Width of the Velcro is 1.5" except part numbers indicated with (*) which is .75".

Braided Silica Sleeve - Hose, Cable, Wire, Pipe & Tube Protection
1800°F / 982°C: Continuous Rating – Higher Temperature for Shorter Periods
InSilMax™ Extreme High Temperature; Heat, Flame, Molten Metal & Weld Splatter Resistant



- An alternative to asbestos and ceramic based textiles.
- Highly flexible and minimal shrinkage.
- High abrasion resistance and tensile strength.
- Melts above 3000°F / 1648°C.
- Produced from an extremely pure base fiber (SiO₂) and can be used at 1800°F / 982°C continuously with short excursions to 3000°F / 1650°C.
- 1/16" (.0625") / 1.6mm nominal wall thickness (sizes below 3/4" ID have an approximate .04"/1mm nominal wall thickness).
- Silica based materials provide burn-through protection from molten metal, weld splatter and grinding sparks.

1800°F / 982°C continuous rating, high insulation value & excellent personnel protection

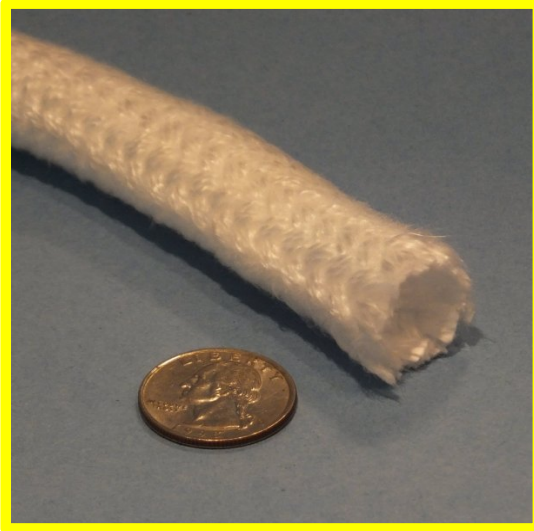
InSilMax™ Extreme Temperature Heat & Flame Resistant Braided Silica Sleeve					
Part Number	ID Size in / mm / -dash			Standard Lengths feet / metre	Price per Foot/Metre
S-S-M006-04-X	.250	6	-04	25 - 50 - 100 ft / 7.6 - 15 - 30 m	\$ 2.05 / \$ 6.72
S-S-M010-06-X	.375	10	-06	25 - 50 - 100 ft / 7.6 - 15 - 30 m	\$ 2.13 / \$ 6.98
S-S-M013-08-X	.500	13	-08	25 - 50 - 100 ft / 7.6 - 15 - 30 m	\$ 2.82 / \$ 9.25
S-S-M016-10-X	.625	16	-10	25 - 50 - 100 ft / 7.6 - 15 - 30 m	\$ 3.12 / \$ 10.23
S-S-M019-12-X	.750	19	-12	25 - 50 - 100 ft / 7.6 - 15 - 30 m	\$ 3.74 / \$ 12.27
S-S-M022-14-X	.875	22	-14	25 - 50 - 100 ft / 7.6 - 15 - 30 m	\$ 4.18 / \$ 13.71
S-S-M025-16-X	1.000	25	-16	25 - 50 - 100 ft / 7.6 - 15 - 30 m	\$ 5.32 / \$ 17.45
S-S-M032-20-X	1.250	32	-20	25 - 50 - 100 ft / 7.6 - 15 - 30 m	\$ 6.44 / \$ 21.12
S-S-M038-24-X	1.500	38	-24	25 - 50 - 100 ft / 7.6 - 15 - 30 m	\$ 7.55 / \$ 24.76
S-S-M044-28-X	1.750	44	-28	25 - 50 - 100 ft / 7.6 - 15 - 30 m	\$ 8.76 / \$ 28.73
S-S-M051-32-X	2.000	51	-32	25 - 50 - 100 ft / 7.6 - 15 - 30 m	\$ 10.52 / \$ 34.51
S-S-M064-40-X	2.500	64	-40	25 - 50 - 100 ft / 7.6 - 15 - 30 m	\$ 12.62 / \$ 41.39
S-S-M070-44-X	2.750	70	-44	10 - 25 - 50 ft / 3 - 7.6 - 15 m	\$ 16.21 / \$ 53.17
S-S-M076-48-X	3.000	76	-48	10 - 25 - 50 ft / 3 - 7.6 - 15 m	\$ 16.38 / \$ 53.73
S-S-M083-52-X	3.250	83	-52	10 - 25 - 50 ft / 3 - 7.6 - 15 m	\$ 16.60 / \$ 54.45
S-S-M089-56-X	3.500	89	-56	10 - 25 - 50 ft / 3 - 7.6 - 15 m	\$ 16.78 / \$ 55.04
S-S-M095-60-X	3.750	95	-60	10 - 25 - 50 ft / 3 - 7.6 - 15 m	\$ 17.23 / \$ 56.51
S-S-M102-64-X	4.000	102	-64	10 - 25 - 50 ft / 3 - 7.6 - 15 m	\$ 17.83 / \$ 58.48
S-S-M114-72-X	4.500	114	-72	10 - 25 - 50 ft / 3 - 7.6 - 15 m	\$ 18.66 / \$ 61.20

For the "X" value, insert length in feet

Other shorter or longer lengths may be available - please enquire

For sizes smaller than 1"/25mm ID – long lengths up to 300 feet may be available

Braided Silica Sleeve – Heavy Wall - Hose, Cable & Wire Protection
1800°F / 982°C: Continuous Rating – Higher Temperature for Shorter Periods
InSilMax™ +PL Extreme High Temperature; Heat, Flame, Molten Metal & Weld Splatter Resistant



- Superior Insulation and Flame Resistance due to heavy wall construction.
- An alternative to asbestos and ceramic based textiles.
- Highly flexible and minimal shrinkage.
- High abrasion resistance and tensile strength.
- Melts above 3000°F / 1648°C.
- Produced from an extremely pure base fiber (SiO₂) and can be used at 1800°F / 982°C continuously with short excursions to 3000°F / 1650°C.
- 3mm (.118”) / wall thickness. Heaviest wall thickness available in this product line.
- Silica based materials provide burn-through protection from molten metal, weld splatter and grinding sparks.

1800°F / 982°C continuous rating, high insulation value & excellent personnel protection

InSilMax™ +PL Extreme Temperature Heat & Flame Resistant Silica Sleeve – Heavy Wall						
Part Number	ID Size in / mm / -dash			Spool Length feet / metre	Price per Spool	Price per Foot / minimum
S-S-HD-M006-04-X	.250	6	-04	164 / 50	\$ 992.20	\$ 6.05
S-S-HD-M010-06-X	.375	10	-06	164 / 50	\$ 1,047.96	\$ 6.39
S-S-HD-M013-08-X	.500	13	-08	164 / 50	\$ 1,387.44	\$ 8.46
S-S-HD-M016-10-X	.625	16	-10	164 / 50	\$ 1,535.04	\$ 9.36
S-S-HD-M019-12-X	.750	19	-12	164 / 50	\$ 1,810.56	\$ 11.04
S-S-HD-M022-14-X	.875	22	-14	164 / 50	\$ 2,053.28	\$ 12.52
S-S-HD-M025-16-X	1.000	25	-16	164 / 50	\$ 2,614.16	\$ 15.94
S-S-HD-M032-20-X	1.250	32	-20	164 / 50	\$ 3,027.44	\$ 18.46
S-S-HD-M038-24-X	1.500	38	-24	164 / 50	\$ 3,714.60	\$ 22.65
S-S-HD-M044-28-X	1.750	44	-28	164 / 50	\$ 4,305.00	\$ 26.25
S-S-HD-M051-32-X	2.000	51	-32	164 / 50	\$ 5,169.28	\$ 31.52
S-S-HD-M064-40-X	2.500	64	-40	164 / 50	\$ 6,192.64	\$ 37.76
S-S-HD-M070-44-X	2.750	70	-44	164 / 50	\$ 7,978.60	\$ 48.65
S-S-HD-M076-48-X	3.000	76	-48	164 / 50	\$ 8,406.64	\$ 51.26
S-S-HD-M083-52-X	3.250	83	-52	164 / 50	\$ 8,980.64	\$ 54.76
S-S-HD-M089-56-X	3.500	89	-56	164 / 50	\$ 9,382.44	\$ 57.21
S-S-HD-M095-60-X	3.750	95	-60	164 / 50	\$ 10,041.72	\$ 61.23
S-S-HD-M102-64-X	4.000	102	-64	164 / 50	\$ 10,883.04	\$ 66.36
S-S-HD-M114-72-X	4.500	114	-72	164 / 50	\$ 11,867.04	\$ 72.36

For the “X” value, use “S” for Full Spool, use “F” for By-The-Foot

This Product is available By-The-Foot – minimums may apply

Braided Silica Sleeve - XT/HD - Hose, Cable, Wire, Pipe & Tube Protection 1900°F / 1037°C: InSiMax™ XT



Extreme High Temperature; Heat, Flame, Molten Metal & Weld Splatter Resistant



- An alternative to asbestos and ceramic based textiles.
- Highly flexible and virtually no shrinkage.
- High abrasion resistance and tensile strength.
- Melts above 3000°F / 1648°C.
- Produced from an extremely pure base fiber (SiO₂) and can be used at 1900°F / 1037°C continuously with short excursions to 3000°F / 1650°C.
- 1/16" (.0625") / 1.6mm wall thickness (sizes below 3/4" ID have an approximate .04"/1mm nominal wall thickness).
- Silica based materials provide burn-through protection from molten metal, weld splatter, grinding sparks and direct flame exposure.

1900°F / 1037°C continuous rating, high insulation value & excellent personnel protection

InSiMax™ XT Extreme Temperature Heat & Flame Resistant Silica Sleeve

Part Number	Size			Standard Lengths feet / metre	Price per Foot/Metre
	in	mm	-dash		
S-S-XT-M006-04-X	.250	6	-04	25 - 50 - 100 ft / 7.6 - 15 - 30 m	\$ 4.10 / \$ 13.45
S-S-XT-M010-06-X	.375	10	-06	25 - 50 - 100 ft / 7.6 - 15 - 30 m	\$ 4.26 / \$ 13.97
S-S-XT-M013-08-X	.500	13	-08	25 - 50 - 100 ft / 7.6 - 15 - 30 m	\$ 5.64 / \$ 18.50
S-S-XT-M016-10-X	.625	16	-10	25 - 50 - 100 ft / 7.6 - 15 - 30 m	\$ 6.24 / \$ 20.47
S-S-XT-M019-12-X	.750	19	-12	25 - 50 - 100 ft / 7.6 - 15 - 30 m	\$ 7.48 / \$ 24.53
S-S-XT-M022-14-X	.875	22	-14	25 - 50 - 100 ft / 7.6 - 15 - 30 m	\$ 8.36 / \$ 27.42
S-S-XT-M025-16-X	1.000	25	-16	25 - 50 - 100 ft / 7.6 - 15 - 30 m	\$ 10.64 / \$ 34.90
S-S-XT-M032-20-X	1.250	32	-20	25 - 50 - 100 ft / 7.6 - 15 - 30 m	\$ 12.88 / \$ 42.25
S-S-XT-M038-24-X	1.500	38	-24	25 - 50 - 100 ft / 7.6 - 15 - 30 m	\$ 15.10 / \$ 49.53
S-S-XT-M044-28-X	1.750	44	-28	25 - 50 - 100 ft / 7.6 - 15 - 30 m	\$ 17.52 / \$ 57.47
S-S-XT-M051-32-X	2.000	51	-32	25 - 50 - 100 ft / 7.6 - 15 - 30 m	\$ 21.04 / \$ 69.01
S-S-XT-M064-40-X	2.500	64	-40	25 - 50 - 100 ft / 7.6 - 15 - 30 m	\$ 25.24 / \$ 82.79
S-S-XT-M070-44-X	2.750	70	-44	10 - 25 - 50 ft / 3 - 7.6 - 15 m	\$ 32.43 / \$ 106.37
S-S-XT-M076-48-X	3.000	76	-48	10 - 25 - 50 ft / 3 - 7.6 - 15 m	\$ 32.76 / \$ 107.45
S-S-XT-M083-52-X	3.250	83	-52	10 - 25 - 50 ft / 3 - 7.6 - 15 m	\$ 33.21 / \$ 108.93
S-S-XT-M089-56-X	3.500	89	-56	10 - 25 - 50 ft / 3 - 7.6 - 15 m	\$ 33.56 / \$ 110.07
S-S-XT-M095-60-X	3.750	95	-60	10 - 25 - 50 ft / 3 - 7.6 - 15 m	\$ 34.46 / \$ 113.03
S-S-XT-M102-64-X	4.000	102	-64	10 - 25 - 50 ft / 3 - 7.6 - 15 m	\$ 35.66 / \$ 116.96
S-S-XT-M114-72-X	4.500	114	-72	10 - 25 - 50 ft / 3 - 7.6 - 15 m	\$ 37.33 / \$ 122.44

For the "X" value, insert length in feet

Other shorter or longer lengths may be available - please enquire

Ceramic Fiber Braided Sleeve - Premium Grade
2000°F / 1093°C: CerMax™ High Temperature & Heat Resistant Sleeve



- Soft and pliable.
- Asbestos free.
- Cuts easily to length with scissors. This sleeve does not expand.

2000°F / 1093°C continuous rating, high insulation value

CerMax™ High Temperature & Heat Resistant Braided Ceramic Fiber Sleeve - Premium			
Part Number	Nominal ID	Spool Length Ft	Price per Spool
S-C-B-M003-02	1/8"	200	\$ 2620.43
S-C-B-M006-04	1/4"	200	\$ 5445.72
S-C-B-M010-06	3/8"	200	\$ 7030.68
S-C-B-M013-08	1/2"	100	\$ 5035.17
S-C-B-M019-12	3/4"	100	\$ 5537.50

This Product is NOT Available By-The-Foot – Spools Only

High Alumina Content Braided Sleeve

2300°F / 1260°C: AluMax™ High Temperature & Heat Resistant Sleeve



- Soft and pliable.
- Asbestos free.
- Cuts easily to length with scissors.
- This is a braided sleeve and has a small amount of expandibility.
- Highest temperature rated sleeve available.
- Fabricated from continuous filament fibers.
- Boron free.

2300°F / 1260°C continuous rating, high insulation value

AluMax™ High Temperature & Heat Resistant Braided Alumina Sleeve - Premium			
Part Number	Nominal ID inch / mm	Spool Length Ft / m	Price per Spool
S-ALUMINA-0.031-M00079	1/32" / 0.79	150 / 45	\$ 1046.25
S-ALUMINA-0.078-M00198	5/64" / 1.98	150 / 45	\$ 1113.75
S-ALUMINA-0.125-M00317	1/8" / 3.17	150 / 45	\$ 1612.50
S-ALUMINA-0.250-M00635	1/4" / 6.35	150 / 45	\$ 1852.50
S-ALUMINA-0.500-M0127	1/2" / 12.7	150 / 45	\$ 3622.50
S-ALUMINA-0.750-M01905	3/4" / 19.05	150 / 45	\$ 4908.75
S-ALUMINA-1.000-M02540	1" / 25.4	150 / 45	\$ 6105.00

This product is made to order - please allow 10 to 12 business days for production

This Product is NOT Available By-The-Foot

Spark Plug & Ignition Wire Boot Protection Sleeve 1200°F / 648°C: FlameShield™ High Temperature & Heat Resistant Sleeve



- Soft and pliable. Asbestos free.
- Easy to install - just slide over boot or plug.
- Requires no clearance to the header - direct contact will not deteriorate the sleeve.
- Wall thickness of .085". Diameter of .75" / 19mm
- Fits straight and angled boots.
- Available in 3 lengths: 4 1/2" (short), 7 1/2" (medium) and 12" (long).
- 4 Colors: White, Red, Blue, Black
- Short sleeves are available from stock in natural (White). Colors by special order
- Medium sleeves from stock are available in all colors.
- Long sleeves are available by special order.

1200°F / 648°C continuous rating, high insulation value

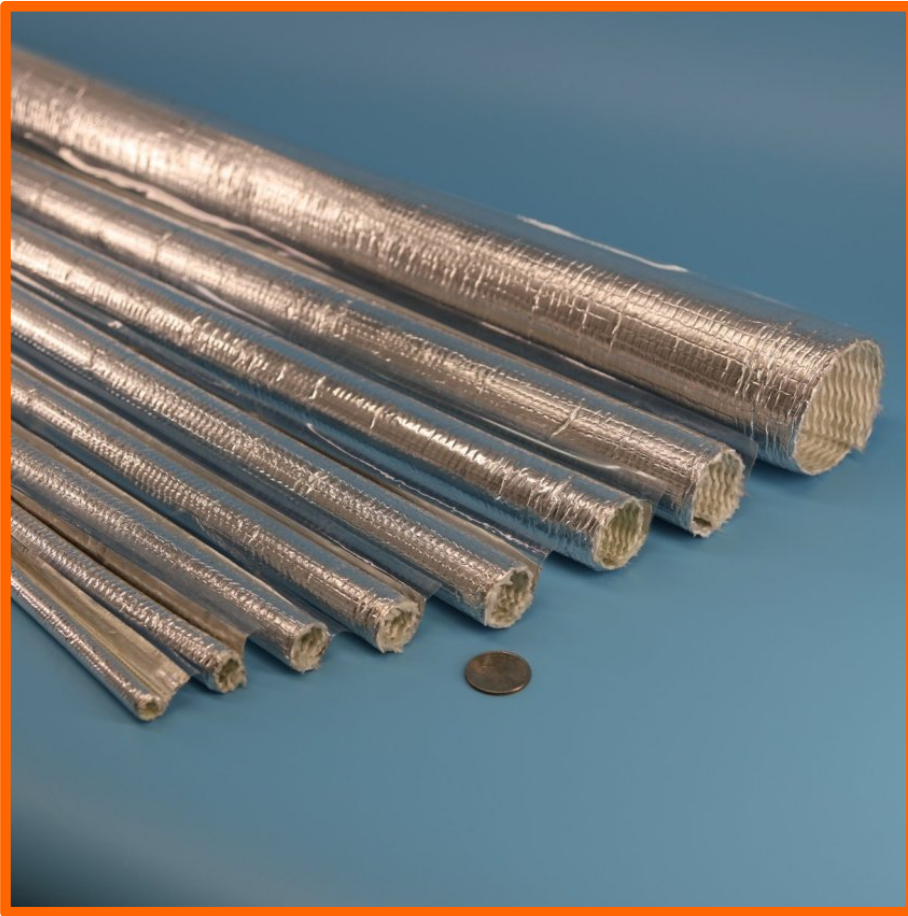
FlameShield™ High Temperature & Heat Resistant Sleeves for Ignition Boot and Spark Plug Protection		
Part Number	Case Price (144)	Price Each
4 1/2" / 115mm Length S-FG-SPB-S-M019-12-X	\$ 550.00	\$ 7.64
7 1/2" / 190mm Length S-FG-SPB-M-M019-12-X	\$ 612.00	\$ 8.50
12" / 305mm Length S-FG-SPB-L-M019-12-X	\$ 977.50	\$ 13.58

For the "X" value use BK - Black, BU - Blue, RD - Red and NT for Natural (White)



Aluminum Foil Coated Fiberglass Heat Reflective Split Sleeve with Adhesive Closure

454°F / 240°C DeltaGlass™ / PET Base Material blend - Aluminum Foil Coating



- Split Sleeve for easy installation on existing wires, cables or hoses.
- Supplied in 4 foot / 1.2 metre lengths.
- Fiberglass base sleeve with PET filament interleave. Aluminum foil coating, with an aluminum foil adhesive closure strip.
- Adhesive strip closure keeps out contaminants and liquids.
- Cuts cleanly.
- Protects wiring or hoses from radiant and convective heat.
- Excellent automotive under-hood protection of wiring and hoses from engine heat.
- .042" / 1.06mm wall thickness.
- The sleeve keeps its round shape due to the PET filament interweave. Resists crushing.

DeltaGlass™ Heat Reflective Split Sleeve with Adhesive Closure				
Part Number	ID Size		Weight/Section oz / grams	Price per 4 foot Section
	inch	mm		
S-FG-AL-SLIT-ACL-0.250-M006-04	1/4"	6	1.3 / 36	\$ 7.33
S-FG-AL-SLIT-ACL-0.375-M010-06	3/8"	10	2.6 / 73	\$ 12.16
S-FG-AL-SLIT-ACL-0.500-M013-08	1/2"	13	3.3 / 93	\$ 15.60
S-FG-AL-SLIT-ACL-0.625-M016-10	5/8"	16	4.0 / 115	\$ 18.53
S-FG-AL-SLIT-ACL-0.750-M019-12	3/4"	19		\$ 22.33
S-FG-AL-SLIT-ACL-1.000-M025-16	1"	25	5.9 / 166	\$ 26.30
S-FG-AL-SLIT-ACL-1.250-M032-20	1 1/4"	32	7.5 / 212	\$ 31.43
S-FG-AL-SLIT-ACL-1.500-M038-24	1 1/2"	38	7.8 / 220	\$ 36.40
S-FG-AL-SLIT-ACL-2.000-M051-32	2"	51	9.4 / 266	\$ 48.53

This sleeve is non-expandable – please measure your application carefully.

Aluminized Heat Reflecting Fiberglass Sleeve - PET Film Coated 1200°F / 648°C DeltaGlass™ Base Material - 454°F / 240°C Film Coating



- Protection from intense radiant heat. Reflects more than 95% of the radiant heat that contacts its surface.
- Base fabric rated for continuous operation at 1200°F / 648°C.
- This sleeve is the perfect protection for cables and hoses when radiant heat from infrared sources such as super-hot metal slabs, proximity to liquid metal, open flame/plasma or engine exhaust manifolds and piping is a concern.
- Wall thickness .025" / .635mm.
- Sleeve is supplied collapsed flat on a spool.

This high temperature and radiant heat reflective sleeve is constructed from a high-temperature fine braid fiberglass sleeve, which is then coated with highly-reflective polished aluminum. The base fabric is designed for long term continuous operation at 1000°F / 537°C, this sleeve will withstand short duration exposure up to 1200°F / 650°C.

Added protection can be achieved by layering with other sleeve materials underneath the reflective layer.

FlameShield™ Aluminized PET Film Coated Fiberglass Radiant Heat Reflective Sleeve .025" / .635mm Wall Thickness				
Part Number	Inside Diameter inch / mm / dash#	Spool Length, feet Bulk / Small	Price per Spool Bulk Spool / Small Spool	Price per Foot
S-FG-ALM-0.50-M013-08-X	0.50 / 13 / -08	250 / 100	\$ 407.50 / \$ 179.00	\$ 4.48
S-FG-ALM-0.62-M016-10-X	0.62 / 16 / -10	250 / 100	\$ 607.50 / \$ 260.00	\$ 6.50
S-FG-ALM-0.75-M019-12-X	0.75 / 19 / -12	250 / 100	\$ 712.50 / \$ 302.00	\$ 7.55
S-FG-ALM-0.87-M022-14-X	0.87 / 22 / -14	250 / 100	\$ 822.50 / \$ 346.00	\$ 8.65
S-FG-ALM-1.00-M025-16-X	1.00 / 25 / -16	250 / 100	\$ 877.50 / \$ 368.00	\$ 9.20
S-FG-ALM-1.25-M032-20-X	1.25 / 32 / -20	250 / 100	\$ 1097.50 / \$ 456.00	\$ 11.40
S-FG-ALM-1.50-M038-24-X	1.50 / 38 / -24	250 / 100	\$ 1207.50 / \$ 499.00	\$ 12.48
S-FG-ALM-1.75-M044-28-X	1.75 / 44 / -28	100 / 50	\$ 637.00 / \$ 335.00	\$ 16.77
S-FG-ALM-2.00-M051-32-X	2.00 / 51 / -32	100 / 50	\$ 790.00 / \$ 412.00	\$ 20.60
S-FG-ALM-2.50-M064-40-X	2.50 / 64 / -40	100 / 50	\$ 1123.00 / \$ 578.50	\$ 28.92
S-FG-ALM-3.00-M076-48-X	3.00 / 64 / -48	100 / 50	\$ 1150.00 / \$ 591.66	\$ 29.58

For the "X" value:

use "B" for Bulk Spool size, use "S" for Small Spool size, use "F" for by-the-foot lengths

This Product is available in bulk spools, shop spools and By-The-Foot

Heat Reflecting Aluminum Foil Coated Fiberglass Sleeve
454°F / 240°C Convoluted High Bulk – with Aluminum Foil Coating
DeltaGlass™ / PET filament Blended Base Material



- Protection from intense radiant heat. Reflects more than 95% of the radiant heat that contacts its surface.
- Base yarn is a blend of e-fiberglass and PET filaments, rated for continuous operation at 454°F / 240°C. The PET interweave keeps the sleeve in its round form for easy wire/cable/hose insertion.
- This sleeve provides protection for cables and hoses when radiant heat from infrared sources such as super-hot metal slabs, proximity to liquid metal, open flame/plasma or engine exhaust manifolds is a concern.
- Wall thickness .045" / 1.14mm. Sleeve is supplied in a 4 foot length.

This high temperature and radiant heat reflective sleeve is constructed from a high-temperature fine braid fiberglass and PET filament interwoven base sleeve, which is then coated with highly-reflective polished aluminum foil. The base fabric is designed for long term continuous operation at 454°F / 240°C.

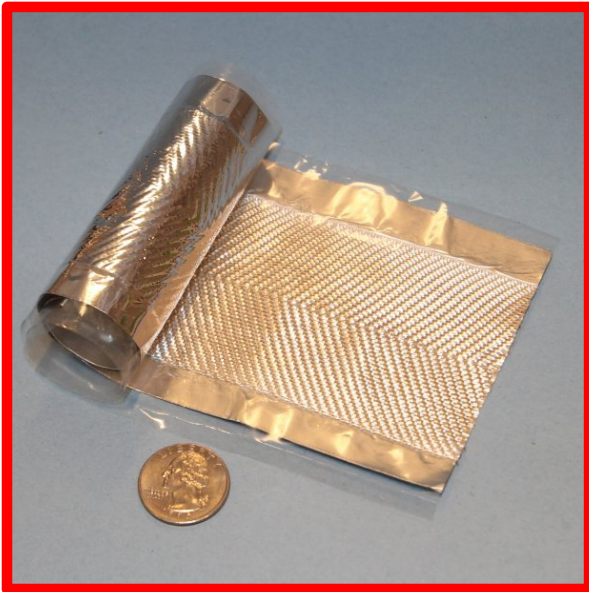
Added protection can be achieved by layering with other sleeve or tape materials underneath the reflective layer.

FlameShield™ Aluminum Foil Coated Fiberglass Radiant Heat Reflective Convoluted Sleeve .045" / 1.14mm Wall Thickness		
Part Number	Inside Diameter inch / mm / dash#	Price per 4 foot Section
S-FG-AL-CONVOL-0.375-M013-08	0.37 / 10 / -06	\$ 8.66
S-FG-AL-CONVOL-0.500-M013-08	0.50 / 13 / -08	\$ 11.50
S-FG-AL-CONVOL-0.620-M016-10	0.62 / 16 / -10	\$ 14.03
S-FG-AL-CONVOL-0.750-M019-12	0.75 / 19 / -12	\$ 15.40
S-FG-AL-CONVOL-0.875-M022-14	0.87 / 22 / -14	\$ 17.46
S-FG-AL-CONVOL-1.000-M025-16	1.00 / 25 / -16	\$ 19.17
S-FG-AL-CONVOL-1.250-M032-20	1.25 / 32 / -20	\$ 23.17

This Product is only available in 4 foot length sections

Aluminized Heat Reflecting Fiberglass Sleeve forming Tape/Wrap; with adhesive strip - PET Film Coated

1200°F / 648°C DeltaGlass™ Base Material - 454°F / 240°C Film Coating



- Protection from intense radiant heat. Reflects more than 95% of the radiant heat that contacts its surface.
- Base fabric rated for continuous operation at 1200°F / 648°C. The adhesive withstands 425°F / 218°C.
- This tape wrap has a high temperature adhesive strip along its length, allowing the tape to be wrapped and formed into a sleeve around wires, cables or hoses, or wrapped spirally down the length.
- Provides protection for cables and hoses when radiant heat from infrared sources such as super-hot metal slabs, proximity to liquid metal, open flame/plasma or engine exhaust manifolds is a concern.
- Wall thickness .025”.

This high temperature and radiant heat reflective tape wrap is constructed from a high-temperature fine woven fiberglass fabric substrate, which is then coated with highly-reflective polished aluminum. The base fabric is designed for long term continuous operation at 1200°F / 648°C.

Added protection can be achieved by layering with other sleeve or tape materials underneath the reflective layer.

FlameShield™ Aluminized PET Film Coated Fiberglass Radiant Heat Reflective Tape Wrap for Sleeve Formation				
Part Number	Resulting Sleeve Maximum Inside Diameter inch / mm / dash#	Tape Width	Spool Length, feet Bulk / Small	Price per Foot Bulk Spool / Small Spool
S-FG-AL-TACL-0.500-M013-08-X	0.50 / 13 / -08	1.5"	250 / 100	\$ 690.00 / \$ 293.00
S-FG-AL-TACL-0.750-M019-12-X	0.75 / 19 / -12	2.25"	250 / 100	\$ 867.50 / \$ 363.00
S-FG-AL-TACL-1.000-M025-16-X	1.00 / 25 / -16	3.75"	200 / 100	\$ 1034.00 / \$ 534.00
S-FG-AL-TACL-1.250-M032-20-X	1.25 / 32 / -20	4.5"	200 / 100	\$ 1254.00 / \$ 644.00
S-FG-AL-TACL-1.500-M038-24-X	1.50 / 38 / -24	5.25"	200 / 100	\$ 1476.00 / \$ 755.00
S-FG-AL-TACL-1.750-M044-28-X	1.75 / 44 / -28	6"	100 / 50	\$ 883.00 / \$ 458.50
S-FG-AL-TACL-2.000-M051-32-X	2.00 / 51 / -32	6.5"	100 / 50	\$ 973.00 / \$ 503.50
S-FG-AL-TACL-2.250-M064-40-X	2.25 / 57 / -36	7.5"	100 / 50	\$ 1233.00 / \$ 633.50

For the “X” value: use “B” for Bulk Spool size, use “S” for Small Spool size

Radiant Heat Reflective Sleeve for Cable, Hose, Wire and Line Protection: Aluminum Foil Coated Fiberglass 1200°F / 648°C: FlameShield™: High Temperature & Radiant Heat Reflective Sleeve for Low Flex Static Applications



- Protection from intense radiant heat. Reflects more than 95% of the radiant heat that contacts its surface.
- The base fabric is rated for continuous operation at 1200°F / 648°C. The aluminum foil melts at 1220°F / 660°C. The aluminum is bonded to the fiberglass under pressure and with an adhesive that will smoke off at 425°F / 218°C - long term high temperature exposure may result in the aluminum foil being separated from the underlying fabric material.
- This sleeve provides optimum protection for cables and hoses when radiant heat from infrared sources such as super-hot metal slabs, proximity to liquid metal, open flame/plasma or engine exhaust manifolds is a concern.
- Heat reflecting layer is pure aluminum foil.
- This sleeve is designed for low flex or low movement and static applications. High flexing cycles will result in the foil cracking.
- Excellent under-hood protection for wiring and hoses.

This heat reflecting sleeve is constructed from a high-temperature base fabric which is then coated with highly-reflective polished aluminum foil. The aluminum coating melts at 1220°F / 660°C, however it does take some time for the aluminum to absorb enough heat to melt – thereby it can withstand short exposure to the higher temperatures.

The sleeve is fabricated from a roll of heat reflecting fabric, and is sewn with a double lock-stitch seam utilizing high-temperature fiberglass thread. The resulting sleeve has a teardrop or tadpole profile when viewed on-end; the width of the sewn tail is typically 5/8" or 16mm. A sleeve with Velcro closure is available, making the sleeve installable on cables and hoses without having to disconnect them. Added thermal protection can be achieved by layering with other sleeve materials underneath the reflective layer.

FlameShield™ Aluminum Foil Coated Fiberglass Radiant Heat Reflective Sewn Sleeve – Low Flex & Static Applications		
Part Number	Inside Diameter inch / mm / dash#	Price per Foot 21oz/yd ² / 35oz/yd ²
S-FG-ALF-SWN-0.500-M013-08-X	0.50 / 13 / -08	\$ 5.48 / \$ 6.58
S-FG-ALF-SWN-0.750-M019-12-X	0.75 / 19 / -12	\$ 7.17 / \$ 8.60
S-FG-ALF-SWN-1.000-M025-16-X	1.00 / 25 / -16	\$ 8.87 / \$10.64
S-FG-ALF-SWN-1.250-M032-20-X	1.25 / 32 / -20	\$ 10.48 / \$ 12.57
S-FG-ALF-SWN-1.500-M038-24-X	1.50 / 38 / -24	\$ 12.17 / \$ 14.60
S-FG-ALF-SWN-1.750-M044-28-X	1.75 / 44 / -28	\$ 13.87 / \$ 16.64
S-FG-ALF-SWN-2.000-M051-32-X	2.00 / 51 / -32	\$ 15.53 / \$ 18.63
S-FG-ALF-SWN-2.500-M064-40-X	2.50 / 64 / -40	\$ 18.97 / \$ 22.76
S-FG-ALF-SWN-3.000-M076-48-X	3.00 / 76 / -48	\$ 22.29 / \$ 26.75
S-FG-ALF-SWN-3.500-M089-56-X	3.50 / 89 / -56	\$ 25.68 / \$ 30.82
S-FG-ALF-SWN-4.000-M102-64-X	4.00 / 102 / -64	\$ 28.97 / \$ 34.76
Other sizes available – please enquire		

For the X value: specify "21" for construction from 21 oz/yd² fabric; specify "35" for construction from 35 oz/yd² fabric

Note: The aluminum adhesion on the 35oz fabric is not as high as on the 21oz fabric, and some perforation separation of the aluminum will occur due to folding or flexing of the material.

This Product is Available By-The-Foot; some minimums may apply

Aluminized PET Film Coated Fiberglass Radiant Heat Reflective Sewn Sleeve
1200°F / 648°C DeltaGlass™ Base Material - 454°F / 240°C Film Coating
High Temperature & Radiant Heat Reflective Sleeve for High Flex Applications



- Protection from intense radiant heat.
- Reflects more than 95% of the radiant heat that contacts its surface.
- Base fabric rated for continuous operation at 1200°F / 648°C.
- This sleeve provides optimum protection for cables and hoses when radiant heat from infrared sources such as super-hot metal slabs, proximity to liquid metal, open flame/plasma or engine exhaust manifolds is a concern.
- Heat reflecting layer is dual side aluminized film.
- This sleeve is designed for high flex or high movement applications.
- Highly popular for engine under-hood wiring & hose/tube protection

Constructed from a high-temperature base fabric which is then coated with dual side aluminized film. The base fabric is designed for long term continuous operation at 1000°F / 537°C, this sleeve will withstand short duration exposure up to 1200°F / 650°C. The aluminum film coating melts at 375°F.

The sleeve is fabricated from a roll fabric, and is sewn with a double lock-stitch seam utilizing high-temperature thread. The resulting sleeve has a teardrop or tadpole profile when viewed on-end; the width of the sewn tail is typically 5/8" or 16mm. A sleeve with Velcro closure is available, making the sleeve installable on cables and hoses without having to disconnect them. The Velcro sleeve results in a circular sleeve profile when closed. Added protection can be achieved by layering with other sleeve materials underneath the reflective layer.

FlameShield™ Aluminum Film Coated Fiberglass Radiant Heat Reflective Sewn Sleeve – High Flex Applications		
Part Number	Inside Diameter inch / mm / dash#	Price per Foot 8oz/yd² / 11oz/yd²
S-FG-ALM-SWN-M013-08-X	0.50 / 13 / -08	\$ 5.48 / \$ 6.58
S-FG-ALM-SWN-M019-12-X	0.75 / 19 / -12	\$ 7.17 / \$ 8.60
S-FG-ALM-SWN-M025-16-X	1.00 / 25 / -16	\$ 8.87 / \$10.64
S-FG-ALM-SWN-M032-20-X	1.25 / 32 / -20	\$ 10.48 / \$ 12.57
S-FG-ALM-SWN-M038-24-X	1.50 / 38 / -24	\$ 12.17 / \$ 14.60
S-FG-ALM-SWN-M044-28-X	1.75 / 44 / -28	\$ 13.87 / \$ 16.64
S-FG-ALM-SWN-M051-32-X	2.00 / 51 / -32	\$ 15.53 / \$ 18.63
S-FG-ALM-SWN-M064-40-X	2.50 / 64 / -40	\$ 18.97 / \$ 22.76
S-FG-ALM-SWN-M076-48-X	3.00 / 76 / -48	\$ 22.29 / \$ 26.75
S-FG-ALM-SWN-M089-56-X	3.50 / 89 / -56	\$ 25.68 / \$ 30.82
S-FG-ALM-SWN-M102-64-X	4.00 / 102 / -64	\$ 28.97 / \$ 34.76
Other sizes available – please enquire		

For the X value: specify "8" for construction from 8 oz/yd² fabric; specify "11" for construction from 11 oz/yd² fabric

This Product is Available By-The-Foot



Aluminum Foil Coated Fiberglass Heat Reflective Sleeve with VELCRO® Brand Hook & Loop Closure
1200°F / 648°C: Aluminum Foil Coated Fiberglass High Temperature & Radiant Heat Reflective, For Low Flex and Static Applications



- Protection from intense radiant heat.
- Reflects more than 95% of the radiant heat that contacts its surface.
- Base fabric is rated for continuous operation at 1200°F / 648°C.
- This sleeve is the perfect protection for cables and hoses when radiant heat from infrared sources such as super-hot metal slabs, proximity to liquid metal, open flame/plasma or engine exhaust manifolds is a concern.
- VELCRO® Brand hook & loop closure allows the sleeve to be installed and removed from wire, cable, hose and pipe without disconnection.
- Designed for low flex and static applications.

Constructed from a high-temperature base fabric which is then laminated coated with highly-reflective polished aluminum. Designed for long term continuous operation at 650°F / 343°C, this sleeve will withstand short duration exposure up to 1200°F / 650°C. The aluminum coating melts at 1220°F / 660°C, however it does take some time for the aluminum to absorb enough heat to melt – thereby it can withstand short exposure to the higher temperatures.

The sleeve is fabricated from a roll fabric, and is then sewn with VELCRO® Brand hook and loop, allowing this sleeve to be installed and removed with disconnection of wiring, cables, hose and pipe. Sewing is performed with high temperature thread. Added protection can be achieved by layering with other sleeve materials underneath the reflective layer.

The same base fabric can be used for constructing a wide variety of protective sleeves and covers.

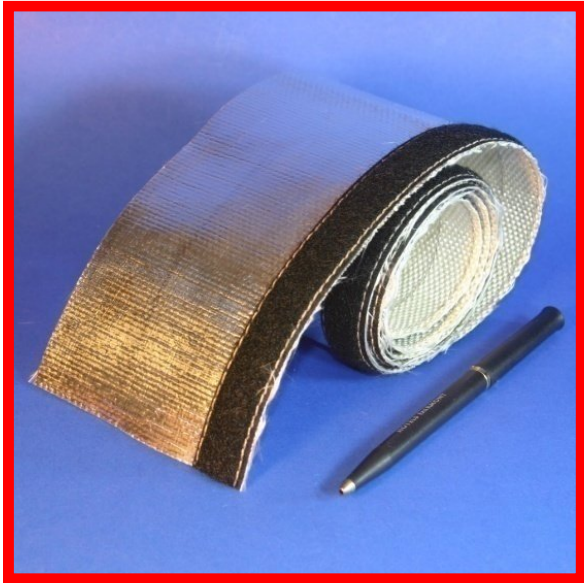
Aluminum Foil Coated Fiberglass Radiant Heat Protection Sleeve with VELCRO® Brand Hook & Loop		
Part Number	Inside Diameter inch / mm / dash#	Price / Foot 21oz/yd² / 35oz/yd²
S-FG-ALF-VCL-M019-12-X	0.75 / 19 / -12	\$ 11.17 / \$ 13.40
S-FG-ALF-VCL-M025-16-X	1.00 / 25 / -16	\$ 12.87 / \$ 15.44
S-FG-ALF-VCL-M032-20-X	1.25 / 32 / -20	\$ 14.48 / \$ 17.37
S-FG-ALF-VCL-M038-24-X	1.50 / 38 / -24	\$ 16.17 / \$ 19.40
S-FG-ALF-VCL-M044-28-X	1.75 / 44 / -28	\$ 17.87 / \$ 21.44
S-FG-ALF-VCL-M051-32-X	2.00 / 51 / -32	\$ 19.53 / \$ 23.44
S-FG-ALF-VCL-M064-40-X	2.50 / 64 / -40	\$ 22.97 / \$ 27.56
S-FG-ALF-VCL-M076-48-X	3.00 / 76 / -48	\$ 26.29 / \$ 31.55
S-FG-ALF-VCL-M089-56-X	3.50 / 89 / -56	\$ 29.68 / \$ 35.62
S-FG-ALF-VCL-M102-64-X	4.00 / 102 / -64	\$ 32.97 / \$ 39.56
Other sizes available – please enquire		

For the X value: specify "21" for construction from 21 oz/yd² fabric; specify "35" for construction from 35 oz/yd² fabric

This Product is Available By-The-Foot



Heat Reflective Aluminized PET Coated Fiberglass Sleeve with VELCRO® Brand Hook & Loop Closure
1200°F / 648°C DeltaGlass™ Base Material - 454°F / 240°C Film Coating
High Temperature & Radiant Heat Reflective For High Flex and High Movement Applications



- Protection from intense radiant heat.
- Reflects more than 95% of the radiant heat that contacts its surface.
- Base fabric is rated for continuous operation at 1000°F / 537°C.
- This sleeve is the perfect protection for cables and hoses when radiant heat from infrared sources such as super-hot metal slabs, proximity to liquid metal, open flame/plasma or engine exhaust manifolds is a concern.
- Velcro closure allows the sleeve to be installed and removed from wire, cable, hose and pipe without disconnection.
- Designed for high flex and movement applications.

Constructed from a high-temperature base fabric which is then laminated coated with dual side aluminized film. Designed for long term continuous operation at 454°F / 240°C, this sleeve will withstand short duration exposure up to 1200°F / 648°C. The aluminum film coating melts at 460°F.

The sleeve is fabricated from a roll fabric, and is then sewn with hook & loop tape, allowing this sleeve to be installed and removed with disconnection of wiring, cables, hose and pipe. Sewing is performed with high temperature thread. The hook and loop sleeve results in a circular sleeve profile when closed. Added protection can be achieved by layering with other sleeve materials underneath the reflective layer.

The same base fabric can be used for constructing a wide variety of protective sleeves and covers.

Aluminum Film Coated Fiberglass Radiant Heat Protection Sleeve with VELCRO® Brand Hook & Loop		
Part Number	Inside Diameter inch / mm / dash#	Price / Foot 8 oz/yd² / 11 oz/yd²
S-FG-ALM-VCL-M019-12-X	0.75 / 19 / -12	\$ 11.17 / \$ 13.40
S-FG-ALM-VCL-M025-16-X	1.00 / 25 / -16	\$ 12.87 / \$ 15.44
S-FG-ALM-VCL-M032-20-X	1.25 / 32 / -20	\$ 14.48 / \$ 17.37
S-FG-ALM-VCL-M038-24-X	1.50 / 38 / -24	\$ 16.17 / \$ 19.40
S-FG-ALM-VCL-M044-28-X	1.75 / 44 / -28	\$ 17.87 / \$ 21.44
S-FG-ALM-VCL-M051-32-X	2.00 / 51 / -32	\$ 19.53 / \$ 23.44
S-FG-ALM-VCL-M064-40-X	2.50 / 64 / -40	\$ 22.97 / \$ 27.56
S-FG-ALM-VCL-M076-48-X	3.00 / 76 / -48	\$ 26.29 / \$ 31.55
S-FG-ALM-VCL-M089-56-X	3.50 / 89 / -56	\$ 29.68 / \$ 35.62
S-FG-ALM-VCL-M102-64-X	4.00 / 102 / -64	\$ 32.97 / \$ 39.56
Other sizes available – please enquire		

For the X value: specify "8" for construction from 8 oz/yd² fabric; specify "11" for construction from 11 oz/yd² fabric

This Product is Available By-The-Foot



**Stainless Steel Coated Fiberglass Sleeve
with VELCRO® Brand Hook & Loop Closure
1200°F / 648°C: High Temperature & Radiant Heat Reflective**



- Protection from intense radiant heat.
- Reflects more than 95% of the radiant heat that contacts its surface.
- Continuous operation at 1200°F / 648°C.
- This sleeve is the perfect protection for cables and hoses when radiant heat from infrared sources such as super-hot metal slabs, proximity to liquid metal, open flame/plasma or engine exhaust manifolds is a concern.
- The hook & loop closure allows the sleeve to be installed and removed from wire, cable, hose and pipe without disconnection.

Constructed from a high-temperature base fabric which is then coated with a layer of 0.002” thick polished stainless steel. Designed for long term continuous operation at 1200°F / 648°C this sleeve will withstand short duration exposure to higher temperatures. The stainless steel foil melts at 1220°F / 660°C, however it does take some time for the aluminum to absorb enough heat to melt – thereby it can withstand short exposure to higher temperatures.

The sleeve is fabricated from a roll fabric, and is then sewn with Velcro tape, allowing this sleeve to be installed and removed with disconnection of wiring, cables, hose and pipe. Sewing is performed with Kevlar or Fiberglass thread. The Velcro sleeve results in a circular sleeve profile when closed. Added protection can be achieved by layering with other sleeve materials underneath the reflective layer.

The same base fabric can be used for constructing a wide variety of protective sleeves and covers for EAF (Electric Arc Furnace) Cable Covers, Festoon covers, robotic welding machine covers, etc.

Fiberglass with Stainless Steel Foil Coating Radiant Heat Protection Sleeve with Velcro		
Part Number	Inside Diameter inch / mm / dash#	Price per Foot
S-FG-SS-VCL-M019-12	0.75 / 19 / -12	\$ 11.17
S-FG-SS-VCL-M025-16	1.00 / 25 / -16	\$ 12.87
S-FG-SS-VCL-M032-20	1.25 / 32 / -20	\$ 14.48
S-FG-SS-VCL-M038-24	1.50 / 38 / -24	\$ 16.17
S-FG-SS-VCL-M044-28	1.75 / 44 / -28	\$ 17.87
S-FG-SS-VCL-M051-32	2.00 / 51 / -32	\$ 19.53
S-FG-SS-VCL-M064-40	2.50 / 64 / -40	\$ 22.97
S-FG-SS-VCL-M076-48	3.00 / 76 / -48	\$ 26.29
S-FG-SS-VCL-M089-56	3.50 / 89 / -56	\$ 29.68
S-FG-SS-VCL-M102-64	4.00 / 102 / -64	\$ 32.97
Other sizes available – please enquire		

This Product is Available By-The-Foot

Tinned Copper Metal Braided Sleeve; Tubular
HoseSaver™ / CableSaver™ : 1832°F / 1000°C: MIL QQB-575 / A-A-59569



- Made from pure copper which has been tinned.
- Excellent Abrasion Protection.
- EMI / RFI Gasket & Sleeve.
- Provides rodent protection for burial cables and hoses.
- Braid angle allows for small amount of size expansion or compression.
- Clamps or tape can hold sleeve tight to underlying wire, cable or hose.
- Supplied in round form, spooled.
- Meets MIL QQB-575 / A-A-59569

Tinned Copper Braided Sleeve HoseSaver™ / CableSaver™					
Part Number	ID Size inch / mm		Spool Length, in feet	Price per Foot	
			Bulk / Small Spool	Bulk / Small Spool	
S-METAL-CTT-0.062-M0015-X	1/16"	1.5	250 / 100	\$ 59.38 / \$ 36.25	
S-METAL-CTT-0.109-M0028-X	7/64"	2.8	250 / 100	\$ 81.25 / \$ 45.00	
S-METAL-CTT-0.125-M0031-X	1/8"	3.1	250 / 100	\$ 96.25 / \$ 51.00	
S-METAL-CTT-0.156-M004-X	5/32"	4	250 / 100	\$ 142.50 / \$ 69.50	
S-METAL-CTT-0.203-M005-X	13/64"	5	250 / 100	\$ 235.63 / \$ 106.75	
S-METAL-CTT-0.250-M006-X	1/4"	6	250 / 100	\$ 237.50 / \$ 107.50	
S-METAL-CTT-0.375-M010-X	3/8"	10	250 / 100	\$ 251.25 / \$ 113.00	
S-METAL-CTT-0.500-M013-X	1/2"	13	100 / 50	\$ 142.00 / \$ 83.50	
* S-METAL-CTT-0.625-M016-X	5/8"	16	100 / 50	\$ 152.00 / \$ 88.50	
S-METAL-CTT-0.781-M020-X	25/32"	20	100 / 50	\$ 218.00 / \$ 121.50	
S-METAL-CTT-0.875-M022-X	7/8"	22	100 / 50	\$ 292.25 / \$ 158.63	
S-METAL-CTT-1.000-M025-X	1"	25	100 / 50	\$ 335.00 / \$ 180.00	
S-METAL-CTT-1.125-M028-X	1 1/8"	28	100 / 50	\$ 370.00 / \$ 197.50	
* S-METAL-CTT-1.250-M032-X	1 1/4"	32	100 / 50	\$ 388.88 / \$ 206.50	
S-METAL-CTT-1.375-M035-X	1 3/8"	35	100 / 50	\$ 440.50 / \$ 232.75	
S-METAL-CTT-1.500-M038-X	1 1/2"	38	100 / 50	\$ 477.00 / \$ 251.00	
S-METAL-CTT-2.000-M051-X	2	51	100 / 50	\$ 526.25 / \$ 275.63	
* S-METAL-CTT-2.250-M057-X	2 1/4"	57	100 / 50	\$ 611.50 / \$ 318.25	

For the "X" value: use "B" for Bulk Spool size, use "S" for Small Spool size, use "F" for By The Foot

Part numbers marked with * are not specified in the MIL Spec

Tinned Copper Metal Braided Sleeve; Tubular

HoseSaver™ / CableSaver™ : 1832°F / 1000°C: MIL QQB-575 / A-A-59569

Meets MIL QQB-575 / A-A-59569

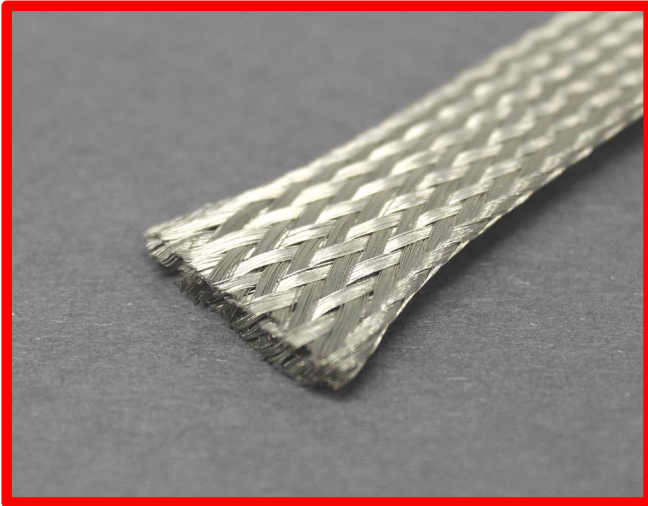
Electrical Specifications

Tinned Copper Braided Sleeve Electrical Specifications HoseSaver™ / CableSaver™				
Part Number	AWG of Individual Wires	Carriers	Wires per Carrier	Current Capacity Amps
S-METAL-CTT-0.062-M0015-X	36	24	2	11
S-METAL-CTT-0.109-M0028-X	36	24	4	19
S-METAL-CTT-0.125-M0031-X	36	24	5	25
S-METAL-CTT-0.156-M004-X	36	24	10	40
S-METAL-CTT-0.203-M005-X	32	24	5	46
S-METAL-CTT-0.250-M006-X	36	24	16	53
S-METAL-CTT-0.375-M010-X	36	48	8	53
S-METAL-CTT-0.500-M013-X	36	48	11	62
* S-METAL-CTT-0.625-M016-X	34	48	8	64
S-METAL-CTT-0.781-M020-X	36	48	18	88
S-METAL-CTT-0.875-M022-X	30	48	7	100
S-METAL-CTT-1.000-M025-X	30	48	8	120
S-METAL-CTT-1.125-M028-X	30	48	9	130
* S-METAL-CTT-1.250-M032-X	30	48	10	145
S-METAL-CTT-1.375-M035-X	30	48	11	150
S-METAL-CTT-1.500-M038-X	30	48	12	165
S-METAL-CTT-2.000-M051-X	30	48	14	180
* S-METAL-CTT-2.250-M057-X	30	48	16	190

Part numbers marked with * are not specified in the MIL Spec



Tinned Copper Metal Braided Sleeve; Flat
HoseSaver™ / CableSaver™ : 1832°F / 1000°C: MIL QQB-575 / A-A-59569



- Made from Pure Copper. Then Tinned.
- Excellent Abrasion Protection.
- EMI / RFI Gasket & Sleeve.
- Provides Blow-out protection for hydraulic hoses.
- Provides rodent protection for burial cables and hoses.
- Braid angle allows for small amount of size expansion or compression.
- Clamps or tape can hold sleeve tight to underlying wire, cable or hose.
- Supplied in flat form, spooled.
- Meets MIL QQB-575 / A-A-59569

Tinned Copper Braided Sleeve: Flat HoseSaver™ / CableSaver™					
Part Number	ID Size inch / mm		Spool Length, in feet Bulk / Small Spool	Price per Foot Bulk / Small Spool	Price per Foot
	S-METAL-CTF-0.125-M0031-X	1/8"			
S-METAL-CTF-0.187-M005-X	3/16"	5	250 / 100	\$ 123.12 / \$ 61.75	\$ 1.85
S-METAL-CTF-0.250-M006-X	1/4"	6	250 / 100	\$ 194.37 / \$ 90.25	\$ 2.71
* S-METAL-CTF-0.375-M010-X	3/8"	10	250 / 100	\$ 245.00 / \$ 110.50	\$ 3.32
S-METAL-CTF-0.625-M016-X	5/8"	16	100 / 50	\$ 120.50 / \$ 72.75	\$ 4.36
S-METAL-CTF-0.750-M019-X	3/4"	19	100 / 50	\$ 229.50 / \$ 127.25	\$ 7.63
* S-METAL-CTF-1.000-M025-X	1"	25	100 / 50	\$ 362.75 / \$ 193.87	\$ 11.63
S-METAL-CTF-1.375-M035-X	1 3/8"	35	100 / 50	\$ 418.00 / \$ 221.50	\$ 13.29
S-METAL-CTF-1.500-M038-X	1 1/2"	38	100 / 50	\$ 471.25 / \$ 248.12	\$ 14.88
* S-METAL-CTF-2.000-M051-X	2	51	50 / 50	\$ 526.12 / \$ 338.62	\$ 32.31
* S-METAL-CTF-3.000-M076-X	3	76	50 / 25	\$ 884.50 / \$ 454.75	\$ 54.57

For the "X" value:
 use "B" for Bulk Spool size, use "S" for Small Spool size, use "F" for By The Foot

Part numbers marked with * are not specified in the MIL Spec

Tinned Copper Metal Braided Sleeve; Flat

HoseSaver™ / CableSaver™ : 1832°F / 1000°C: MIL QQB-575 / A-A-59569

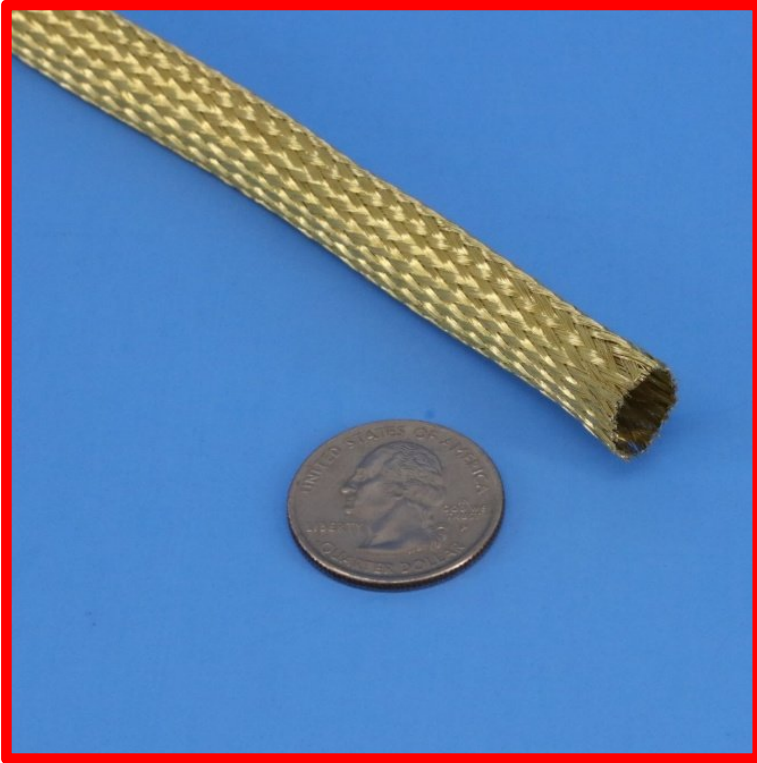
Meets MIL QQB-575 / A-A-59569

Electrical Specifications

Tinned Copper Braided Sleeve Electrical Specifications HoseSaver™ / CableSaver™				
Part Number	AWG of Individual Wires	Carriers	Wires per Carrier	Current Capacity Amps
S-METAL-CT-0.125-M0031-X	36	24	3	16
S-METAL-CT-0.187-M005-X	36	24	5	25
S-METAL-CT-0.250-M006-X	36	24	10	40
S-METAL-CT-0.375-M010-X	36	48	6	40
S-METAL-CT-0.625-M016-X	36	48	8	53
S-METAL-CT-0.750-M019-X	36	48	18	88
S-METAL-CT-1.000-M025-X	36	48	18	85
S-METAL-CT-1.375-M035-X	30	48	7	100
S-METAL-CT-1.500-M038-X	30	48	11	145
S-METAL-CT-2.000-M051-X	30	48	28	255
S-METAL-CT-3.000-M076-X	30	48	47	390

Part numbers marked with * are not specified in the MIL Spec

**Brass Metal Braided Sleeve; Tubular
HoseSaver™ / CableSaver™ : 1472°F / 800°C**



- Made from brass (copper/zinc alloy).
- Antimicrobial.
- EMI / RFI Gasket & Sleeve.
- Provides rodent protection for burial cables and hoses.
- Braid angle allows for size expansion.
- Clamps or tape can hold sleeve tight to underlying wire, cable or hose.
- Supplied in flattened form, spooled. Easily re-tubularized.
- Popular for improving aesthetic appearance of hoses and wiring on automotive and industrial equipment.

Brass Braided Sleeve HoseSaver™ / CableSaver™					
Part Number	Nominal ID inch / mm	ID Range inch / mm		Spool Length, feet Bulk / Small Spool	Price per Spool Bulk / Small
S-METAL-BRA-0.125-M0031-X	1/8 / 3.1	1/8" – 1/4"	3.1 - 6	250 / 25	\$ 337.50 / \$ 46.25
S-METAL-BRA-0.250-M006-X	1/4 / 6	1/4" – 3/8"	6 - 10	100 / 25	\$ 362.50 / \$ 103.12
S-METAL-BRA-0.375-M010-X	3/8 / 10	3/8" – 3/4"	10 – 19	100 / 25	\$ 380.00 / \$ 107.50
S-METAL-BRA-0.500-M013-X	1/2 / 12.7	1/2" – 1"	12.7 - 25	100 / 25	\$ 497.00 / \$ 137.50

Wall Thickness: 0.125 ID - .015". 0.250 ID - .027". 0.375 ID - .015". 0.500 ID - .020"

For the "X" value: use "B" for Bulk Spool size, use "S" for Small Spool size

Stainless Steel Metal Braided Sleeve; Round – Hose Size / Heavy Duty HoseSaver™ / CableSaver™ : 2500°F / 1371°C:



- Designed for common hose sizes. Made from 304L Stainless Steel. 321 and 316 Stainless Available.
- Excellent Abrasion Protection.
- EMI / RFI Gasket & Sleeve.
- Provides Blow-out protection for hydraulic hoses.
- Provides rodent protection for burial cables and hoses.
- Also available in Bronze, Monel, Inconel Copper and Hastelloy.
- Braid angle allows for small amount of size expansion or compression.
- Clamps or tape can hold sleeve tight to underlying wire, cable or hose.
- Supplied as a round sleeve, coiled and boxed.

“Hose” Size 304L Tubular Stainless Steel Braided Sleeve HoseSaver™ / CableSaver™

Part Number	Actual Size I.D. inch / mm	“Hose” Size inch / mm		Braid coverage %	Weight per foot in lbs.	Price per Foot
S-METAL-SS-HS-M006-04	0.50 / 13	1/4"	6	89	.08	\$ 7.21
S-METAL-SS-HS-M010-06	0.67 / 17	3/8"	10	91	.12	\$ 7.87
S-METAL-SS-HS-M013-08	0.82 / 21	1/2"	13	82	.16	\$ 8.75
S-METAL-SS-HS-M019-12	1.21 / 31	3/4"	19	90	.20	\$ 10.12
S-METAL-SS-HS-M025-16	1.51 / 38	1"	25	85	.23	\$ 13.34
S-METAL-SS-HS-M032-20	1.85 / 47	1 1/4"	32	83	.31	\$ 13.50
S-METAL-SS-HS-M035-24	2.19 / 55	1 1/2"	35	87	.40	\$ 16.87
S-METAL-SS-HS-M051-32	2.60 / 66	2	51	89	.62	\$ 18.00
S-METAL-SS-HS-M063-40	3.23 / 82	2 1/2	63	86	.70	\$ 19.13
S-METAL-SS-HS-M076-48	3.78 / 96	3	76	85	.80	\$ 20.25
S-METAL-SS-HS-M101-64	4.85 / 123	4	101	84	1.00	\$ 22.50
S-METAL-SS-HS-M127-80	5.90 / 150	5	127	74	1.25	\$ call
S-METAL-SS-HS-M152-96	6.87 / 174	6	152	90	1.60	\$ call
S-METAL-SS-HS-M203-128*	9.09 / 231	8	203	96	3.87	\$ call
S-METAL-SS-HS-M254-160*	11.18 / 284	10	254	98	6.05	\$ call
S-METAL-SS-HS-M305-192*	13.23 / 336	12	305	97	5.81	\$ call
S-METAL-SS-HS-M355-224*	14.70 / 373	14	355	99	7.89	\$ call

This Product is Available By-The-Foot: Standard lengths up to 100 feet available

A note about sizes: The “Hose” sizes refer to the nominal hose size. For example: a 1/4” “Hose” size nominal braided stainless sleeve is actually 0.48” ID, which would be the nominal OD of a 1/4” hose. For “standard” size stainless sleeve see next catalog page..

* Braided braid



Stainless Steel Metal Braided Sleeve
XL High Coverage flat sleeve; SD Standard Coverage round sleeve
2500°F / 1371°C: Standard Size HoseSaver™ / CableSaver™



- “Standard” size stainless braid sleeve: an alternative to “Hose” size sleeve.
- Flexible size – can expand or shrink by approx 25% due to the high braid angle. Expanded position results in slightly lower braid coverage.
- Excellent Abrasion Protection.
- EMI / RFI Gasket & Sleeve.
- Provides Blow-out protection for hydraulic hoses.
- Provides rodent protection for burial cables and hoses.
- Clamps, tape or ties can hold the sleeve tight to underlying wire, cable or hose if required, and at the connector ends.
- S-METAL-SS-XL is supplied as a flat sleeve, on spools. S-METAL-SS-SD is supplied as round.
- S-METAL-SS-XL is a high coverage braid allowing greater expandability than the S-METAL-SS-SD version.

“Standard” Size 304L Tubular Stainless Steel Braided Sleeve
HoseSaver™ / CableSaver™

Part Number	ID Size		Size Range	Wall Thickness	Spool Length, feet Bulk / Small Spool	Price per Spool Bulk / Small Spool
	inch	mm				
S-METAL-SS-XL-M0015-01-X	1/16"	1.5	Nominal	.013"	250 / 100	\$ 237.50 / \$ 111.66
S-METAL-SS-XL-M003-02-X	1/8"	3	1/16 – 11/32	.013"	250 / 100	\$ 375.00 / \$ 166.66
S-METAL-SS-XL-M006-04-X	1/4"	6	3/16 – 13/32	.013"	250 / 100	\$ 464.16 / \$ 202.33
S-METAL-SS-XL-M010-06-X	3/8"	10	¼ - 5/8	.013"	250 / 100	\$ 808.33 / \$ 340.00
S-METAL-SS-XL-M013-08-X	1/2"	13	3/8 – 3/4	.013"	100 / 50	\$ 330.66 / \$ 182.00
S-METAL-SS-XL-M019-12-X	3/4"	19	½ - 1 1/4	.013"	100 / 50	\$ 640.00 / \$ 336.66
S-METAL-SS-XL-M025-16-X	1"	25	5/8 – 1 5/16	.025"	100 / 50	\$ 866.00 / \$ 450.00
S-METAL-SS-XL-M032-20-X	1 1/4"	32	¾ - 1 3/4	.025"	100 / 50	\$ 1083.33 / \$ 558.33
S-METAL-SS-XL-M035-24-X	1 1/2"	35	1 – 2 1/8	.025"	100 / 50	\$ 1166.66 / \$ 600.00
S-METAL-SS-SD-M013-08-X	1/2"	13	1/4" - 5/8"	.025"	100 / 25	\$ 816.66 / \$ 220.83
S-METAL-SS-SD-M016-10-X	5/8"	16	3/8" - 3/4"	.025"	100 / 25	\$ 833.33 / \$ 225.00
S-METAL-SS-SD-M019-12-X	3/4"	19	1/2 - 1"	.025"	100 / 25	\$ 855.66 / \$ 230.56
S-METAL-SS-SD-M025-16-X	1"	25	3/4" - 1 1/4"	.025"	100 / 25	\$ 1039.00 / \$ 276.40
S-METAL-SS-SD-M032-20-X	1 1/4"	32	1 - 1 1/2	.035"	100 / 25	\$ 1489.00 / \$ 388.90
S-METAL-SS-SD-M044-28-X	1 3/4"	44	1 1/2 - 2 1/4	.040"	100 / 25	\$ 1816.66 / \$ 470.83

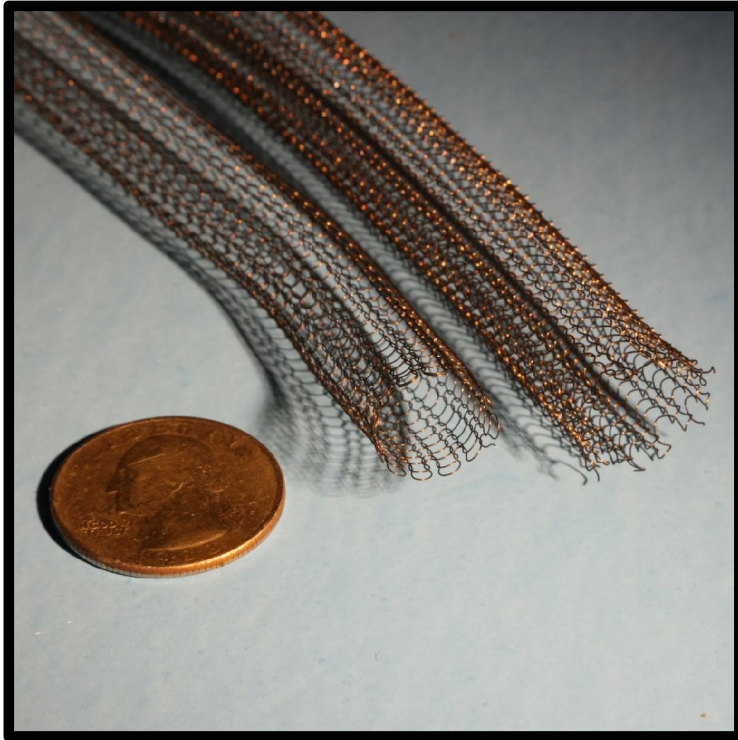
For the “X” value: use “B” for Bulk Spool size, use “S” for Small Spool size

For “Hose” size stainless sleeve see previous page



Stainless Steel Hollow Knitted Mesh Sleeve

1200°F / 648°C:



- Excellent Compressability and pushback with no compression set.
- Provides abrasion protection.
- Excellent EMI / RFI Gasket.
- Used as a bulb material in some tadpole and gasket ropes instead of solid mesh rope for added compressability of the bulb.
- 304 Stainless

304 Stainless Steel Hollow Knitted Mesh Sleeve				
ID Size inch / mm		Part Number	Feet per Carton	Price per Carton
1/4"	6	S-SS-HOLLOW-M006-04	1000	\$ 1600.00
3/8"	10	S-SS-HOLLOW-M010-06	1000	\$ 1700.00
1/2"	13	S-SS-HOLLOW-M013-08	500	\$ 1065.00
5/8"	16	S-SS-HOLLOW-M016-10	500	\$ 1115.00
3/4"	19	S-SS-HOLLOW-M019-12	500	\$ 1150.00

Please call for additional discount pricing when ordering more than 2 cartons.



Solid Wall Stainless Steel Flexible Sleeve

1200°F / 648°C:



- Annular corrugated construction provides ability to easily flex and bend, compress and expand.
- Excellent abrasion and splash Protection.
- EMI / RFI Shield.
- Provides Blow-out protection for hydraulic hoses.
- Provides rodent protection for burial cables and hoses.
- Wires cables and hoses can be spiral wrapped with tapes prior to insertion for insulation spacing to the sidewall.
- Range of fittings and connection flanges available to terminate sleeve onto metalwork, bulkheads, etc.
- Available in Bronze, Monel, Inconel & Hastelloy

This

Solid Wall Stainless Steel Flexible Sleeve							
Part Number	Nominal ID inch / mm		Min Bend Radius inch		Weight per foot	Price per Foot	Mill Lengths feet
			Static	Dynamic			
S-METAL-SS-SW-M008-04	.32	8	4	6	0.09	\$ 6.83 *	30-100
S-METAL-SS-SW-M011-06	.42	11	2	4	0.12	\$ 7.73	30-100
S-METAL-SS-SW-M013-08	.52	13	3	5	0.16	\$ 7.90	30-100
S-METAL-SS-SW-M020-12	.81	20	4	6	0.26	\$ 10.23	30-100
S-METAL-SS-SW-M026-16	1.03	26	4.5	7	0.36	\$ 14.27	30-100
S-METAL-SS-SW-M033-20	1.30	33	4	11	0.45	\$ 17.27	30-60
S-METAL-SS-SW-M039-24	1.53	39	4.5	12	0.48	\$ 19.70	30-60
S-METAL-SS-SW-M052-32	2.05	52	5	13	0.70	\$ 24.97	30-60
S-METAL-SS-SW-M066-40	2.61	66	5	13	1.28	\$ 40.13	7-20
S-METAL-SS-SW-M079-48	3.10	79	7.5	16	1.53	\$ 43.97	7-20
S-METAL-SS-SW-M089-56	3.50	89	8	17	1.65	\$ 54.50 *	7-20
S-METAL-SS-SW-M101-64	3.98	101	10	20	1.95	\$ 54.30	7-20
S-METAL-SS-SW-M128-80	5.03	128	12	24	2.76	\$ 88.67	7-20
S-METAL-SS-SW-M152-96	5.98	152	15	30	3.34	\$ 92.87	7-20
S-METAL-SS-SW-M202-128	7.96	202	20	40	5.32	\$ 161.60	5-12
S-METAL-SS-SW-M248-157	9.78	248	25	50	8.71	\$ 198.85	5-12
S-METAL-SS-SW-M299-188	11.76	299	30	60	11.58	\$ 231.68	5-12
S-METAL-SS-SW-M346-217	13.62	346	35	70	14.57	\$ 753.47	5-12

Product is Available By-The-Foot

Supplied in 304SS as standard. Except (*) supplied in 321SS

Also Available in 321 & 316 Stainless, Bronze, Monel, Inconel and Hastelloy, please call for pricing



EMI / RFI Wire and Cable Harness Shielding Sleeve

302°F / 150°C: FlameShield™



- Lightweight
- Extreme Flexibility
- Excellent Electro-Magnetic Interference and Radio Frequency Interference (EMI / RFI) Shielding 1 MHz to 1 GHz
- Aramid fiber with conductivity
- Expandability
- Approximate 20% attenuation at maximum expanded diameter

- End-to-end shielding solution



FlameShield™ EMI/RFI Wire & Cable Shielding Sleeve						
Part Number	ID Size		Expansion Range		Feet per Spool	Price per Spool
	inch	mm				
S-EMI-M003-02	1/8"	3	1/16	1/4	164	\$ 1234.92
S-EMI-M010-06	3/8"	10	1/4	1/2	164	\$ 1805.64
S-EMI-M013-08	1/2"	13	3/8	3/4	164	\$ 2091.13
S-EMI-M019-12	3/4"	19	1/2	1	164	\$ 2509.20

Not available By-The-Foot

Exhaust Hose Ducting - High Temperature & Heat Resistant 1500°F / 815°C: FlameShield™



- Designed for extracting fumes from metal fabrication works; refining, smelting, forging.
- Makes a great large air gap heat shield to cover piping, wires and cables.
- Constructed of a 3 ply non-flammable, lightweight and flexible ceramic coated hose, with a V4A internal stainless steel wire.
- Has an external steel wearstrip for abrasion resistance.
- Only sold in full coil lengths of 25 feet.

High Temperature Exhaust Hose / Ducting for Metal Processing							
Part Number	ID Size inch / mm		Working Pressure	Vacuum	Bend Radius	Weight / ft	Price per Foot
H-C-M102-64	4"	102	4 #	8	8"	1.5	\$ 184.00
H-C-M127-80	5"	127	3 #	6	10"	1.8	\$ 218.00
H-C-M152-96	6"	152	2 #	6	12"	2.2	\$ 262.50
H-C-M203-128	8"	203	1 #	5	16"	3	\$ 300.00
H-C-M254-160	10"	254	1 #	4	20"	3.5	\$ 371.50
H-C-M305-192	12"	305	1 #	3	24"	3.85	\$ 449.50



Exhaust Hose for Welding Applications

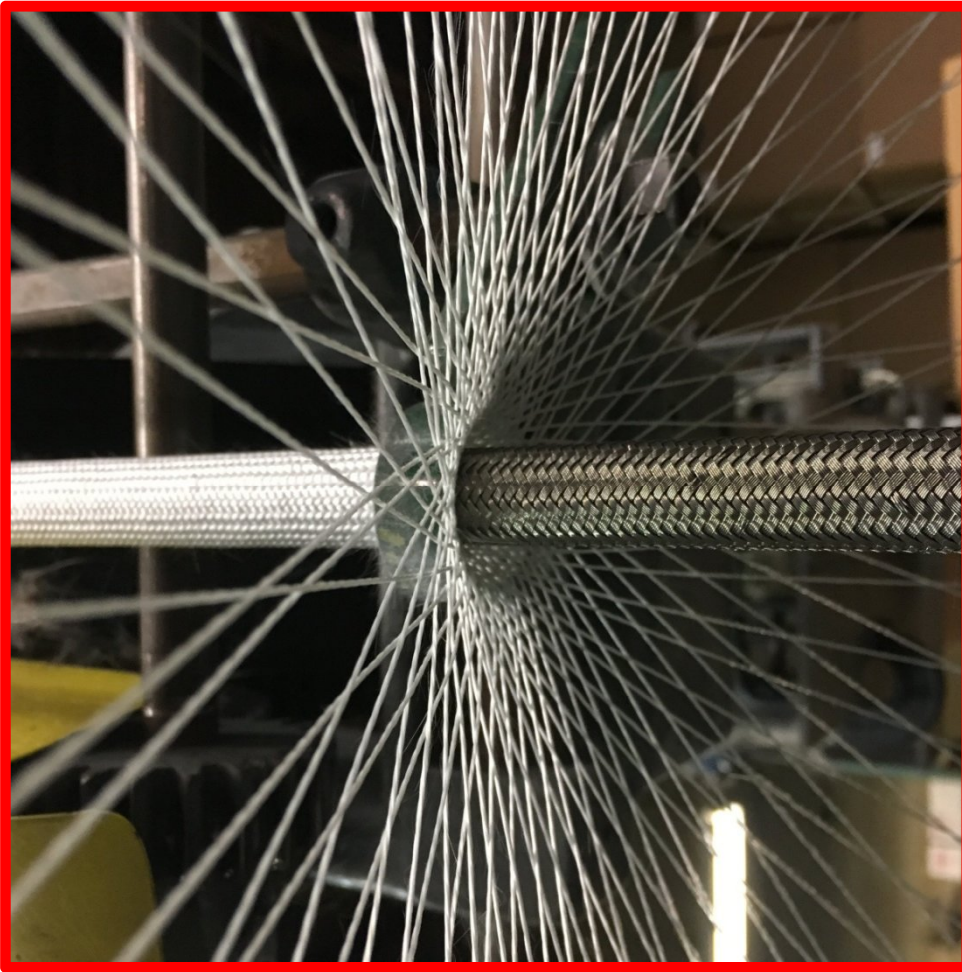
300°F / 148°C:



- Designed for extracting fumes from welding operations.
- Constructed of a fiberglass base material with an aluminized PET film coating. Bonded to a helix.
- Only sold in full coil lengths of 25 feet.

High Temperature Exhaust Hose / Ducting for Welding Applications							
Part Number	ID Size inch / mm		Working Pressure	Vacuum	Bend Radius	Weight / ft	Price per Foot
H-FG-AL-M102-64	4"	102	4 #	2.7	6"	1.15	\$ 9.32
H-FG-AL-M127-80	5"	127	4 #	2.4	7.5"	1.25	\$ 10.64
H-FG-AL-M152-96	6"	152	3 #	2.2	9"	1.34	\$ 13.32
H-FG-AL-M203-128	8"	203	3 #	1.8	12"	1.75	\$ 17.98

Wire, Cable, Harness and Hose Overbraid Service Thermal Protection / Abrasion Protection / Organization



Our in-house braiding capability and experience allows us to provide exceptional quality and a timely response to protect your wiring, cables and hoses.

Available overbraid materials include e-fibreglass filament, Kevlar[®], Nomex[®], Nylon, PET, Polyester and Stainless wire

Please provide a description of your materials and sizing to allow us to provide an accurate quotation.

Kevlar[®] & Nomex[®] are trademarks of DuPont™



**Standard Sleeving Sizes: Inside Diameter and Wall Thickness Specifications
For S-FS-SD, S-FG-S, S-FG-E Sleeve**

AWG Size	Nominal Size				Inside Diameter				Wall Thickness	
	AWG	in.	mm.	dash	Min / Max inches		Min / Max millimeter		In.	mm.
AWG 24	24	0.022	0.56	NA	0.020	0.027	0.508	0.685	0.011	0.279
AWG 22	22	0.027	0.69	NA	0.025	0.032	0.638	0.812	0.013	0.330
AWG 20	20	0.034	0.86	NA	0.032	0.039	0.812	0.990	0.013	0.330
AWG 19	19	0.038	0.96	NA	0.036	0.044	0.914	1.117	0.013	0.330
AWG 18	18	0.042	1.07	NA	0.040	0.049	1.016	1.244	0.015	0.381
AWG 17	17	0.047	1.19	NA	0.045	0.054	1.143	1.371	0.015	0.381
AWG 16	16	0.053	1.35	NA	0.051	0.061	1.295	1.549	0.015	0.381
AWG 15	15	0.059	1.50	NA	0.057	0.067	1.447	1.701	0.015	0.381
AWG 14	14	0.066	1.68	-01	0.064	0.074	1.625	1.879	0.015	0.381
AWG 13	13	0.076	1.93	NA	0.072	0.082	1.828	2.087	0.015	0.381
AWG 12	12	0.085	2.16	NA	0.081	0.091	2.057	2.311	0.015	0.381
AWG 11	11	0.095	2.41	NA	0.091	0.101	2.311	2.565	0.018	0.457
AWG 10	10	0.106	2.69	NA	0.102	0.112	2.59	2.844	0.018	0.457
AWG 9	9	0.118	3.10	NA	0.114	0.124	2.895	3.149	0.018	0.457
AWG 8	8	0.133	3.38	-02	0.129	0.141	3.276	3.581	0.018	0.457
AWG 7	7	0.148	3.76	NA	0.144	0.158	3.657	4.013	0.018	0.457
AWG 6	6	0.166	4.22	NA	0.162	0.178	4.114	4.521	0.020	0.508
AWG 5	5	0.186	4.72	-03	0.182	0.198	4.622	5.029	0.020	0.508
AWG 4	4	0.208	5.28	NA	0.204	0.224	5.181	5.689	0.020	0.508
AWG 3	3	0.234	5.94	NA	0.229	0.249	5.816	6.324	0.020	0.508
AWG 2	2	0.263	6.68	-04	0.258	0.278	6.553	7.061	0.020	0.508
AWG 1	1	0.294	7.47	NA	0.289	0.311	7.340	7.899	0.020	0.508
05	5/16	0.313	7.95	-05	0.312	0.334	7.924	8.483	0.020	0.508
AWG 0	0	0.330	8.38	NA	0.325	0.347	8.255	8.813	0.025	0.635
06	3/8	0.375	9.52	-06	0.375	0.399	9.525	10.134	0.025	0.635
07	7/16	0.438	11.12	-07	0.438	0.462	11.12	11.734	0.025	0.635
08	1/2	0.500	12.70	-08	0.500	0.524	12.70	13.309	0.025	0.635
10	5/8	0.625	15.87	-10	0.625	0.655	15.87	16.637	0.025	0.635
12	3/4	0.750	19.05	-12	0.750	0.786	19.05	19.964	0.025	0.635
14	7/8	0.875	22.22	-14	0.875	0.911	22.22	23.139	0.025	0.635
16	1	1.000	25.40	-16	1.000	1.036	25.00	26.314	na	

Sleeving Splices

Most sleeving is produced to NEMA TF 1 1993, which allows for the following maximum number of splices; 50 foot spool, 2 splices; 100 foot, 3 splices; 150 foot, 3 splices; 250 foot, 4 splices; 500 foot, 7 splices; 1000 foot, 10 splices. Please enquire if you require splice free lengths.

