

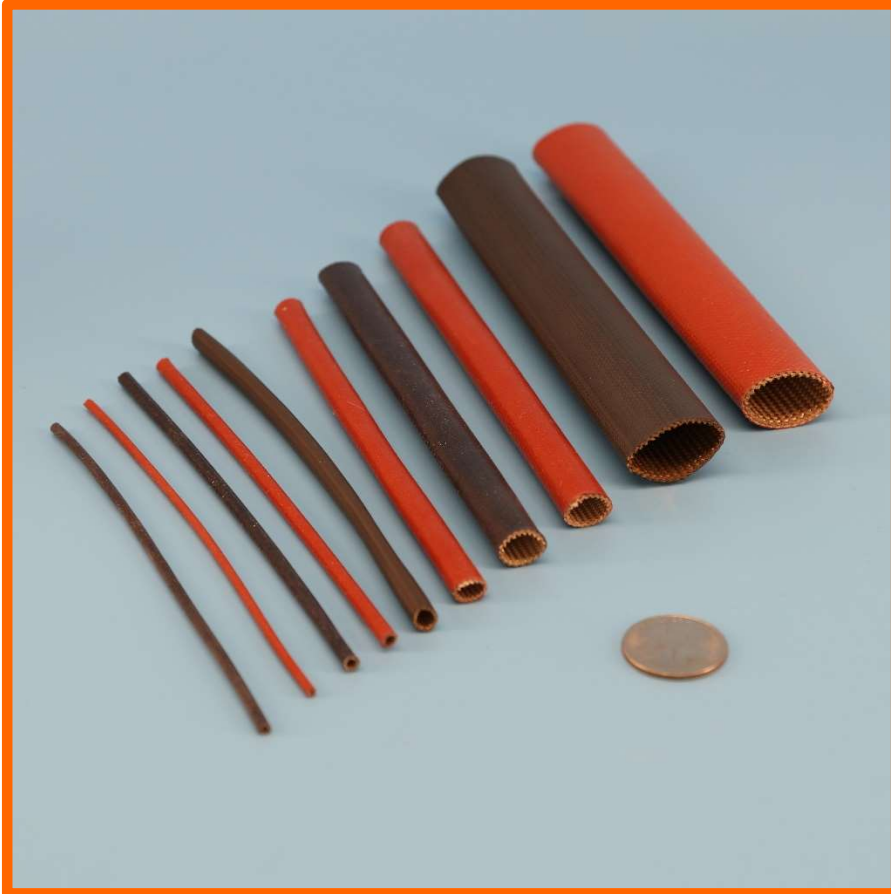
## Small Diameter Firesleeve style sleeve for Wiring, Cable and Tubing Protection

**Class 240 - Grade A-1 - 8000v Minimum Average / 6000v Minimum Individual - VW-1**

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

**High Temperature, Heat, Flame, Spark & Weld Splatter Resistant**

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



FlameShield™ small diameter firesleeve style sleeving is designed as a primary insulation sleeve for protecting small diameter wire, cable, lines, hose, and pipe from high temperature, flame, spark, splatter and environmental contamination.

The thin wall braid and thin coating make the sleeve ideal for protection in space limited installations, while still providing exceptional protection and performance.

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-1).

Meets 14 CFR 25.869(a)(4); Appendix F, Part 1(b)(7) (60-degree flammability Test) for use as a wiring/cable protection sleeve.

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, dust, grime, etc.

Depending on the sleeve diameter, this product is supplied in 100, 150 or 250 foot lengths on spools.

Some larger sleeves are supplied in shorter lengths or 3 foot long "sticks".

NEMA allows non continuous lengths according to the following limitations:

Feet per Spool	Max # of lengths
100ft	3
150ft	3
250ft	4
500ft	7
1,000ft	10

If your requirement includes a minimum continuous length, please specify at time of ordering.

**Small Diameter Firesleeve style sleeve 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><b>Property</b></u>	<u><b>Procedure</b></u>	<u><b>Performance</b></u>
<b>Physical</b>		
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
<b>Chemical</b>		
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
<b>Electrical</b>		
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)
<b>Thermal</b>		
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 style sleeving (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**

<b>High Temperature - Small Diameter – NEMA Wall Thickness Sleeve</b>					
<b>FlameShield™ Silicone Rubber Coated Fiberglass Sleeve with</b>					
<b>UL/CSA rating and NEMA Grade TF-1 Classification</b>					
Part Number	Nominal ID				Minimum Feet per Spool *
	AWG / Inches / mm / -dash				
S-FS-SD-AWG24-X	24	0.022	0.56		500*
S-FS-SD-AWG22-X	22	0.027	0.69		500*
S-FS-SD-AWG20-X	20	0.034	0.86		500*
S-FS-SD-AWG19-X	19	0.038	0.96		500*
S-FS-SD-AWG18-X	18	0.042	1.07		500*
S-FS-SD-AWG17-X	17	0.047	1.19		500*
S-FS-SD-AWG16-X	16	0.053	1.35		500*
S-FS-SD-AWG15-X	15	0.059	1.50		500*
S-FS-SD-AWG14-X	14	0.066	1.68	-01	500*
S-FS-SD-AWG13-X	13	0.076	1.93		250*
S-FS-SD-AWG12-X	12	0.085	2.16		250*
S-FS-SD-AWG11-X	11	0.095	2.41		250*
S-FS-SD-AWG10-X	10	0.106	2.69		250*
S-FS-SD-AWG9-X	9	0.118	3.10		250*
S-FS-SD-AWG8-X	8	0.133	3.38	-02	250*
S-FS-SD-AWG7-X	7	0.148	3.76		250*
S-FS-SD-AWG6-X	6	0.166	4.22		150*
S-FS-SD-AWG5-X	5	0.186	4.72	-03	150*
S-FS-SD-AWG4-X	4	0.208	5.28		150*
S-FS-SD-AWG3-X	3	0.234	5.94		150*
S-FS-SD-AWG2-X	2	0.263	6.68	-04	150*
S-FS-SD-AWG1-X	1	0.294	7.47		150*
S-FS-SD-05-X	5/16	0.313	7.95	-05	150*
S-FS-SD-AWG0-X	0	0.330	8.38		150
S-FS-SD-06-X	3/8	0.375	9.52	-06	150
S-FS-SD-07-X	7/16	0.438	11.12	-07	100
S-FS-SD-08-X	1/2	0.500	12.70	-08	100
S-FS-SD-10-X	5/8	0.625	15.87	-10	100
S-FS-SD-12-X	3/4	0.750	19.05	-12	100
S-FS-SD-14-X	7/8	0.875	22.22	-14	100
S-FS-SD-16-X	1	1.000	25.40	-16	100
S-FS-SD-18-X	1 1/8	1.125	28.57	-18	100
S-FS-SD-20-X	1 1/4	1.250	31.75	-20	100
S-FS-SD-22-X	1 3/8	1.375	34.92	-22	100
S-FS-SD-23-X	1 7/16	1.437	36.49	-23	100
S-FS-SD-24-X	1 1/2	1.500	38.10	-24	3***
S-FS-SD-26-X	1 5/8	1.625	41.27	-26	3***
S-FS-SD-28-X	1 3/4	1.750	44.45	-28	3***
S-FS-SD-30-X	1 7/8	1.875	47.62	-30	3***
S-FS-SD-32-X	2	2.000	50.80	-32	3***

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 99 feet. \*\*\* Minimum order 60 feet.