



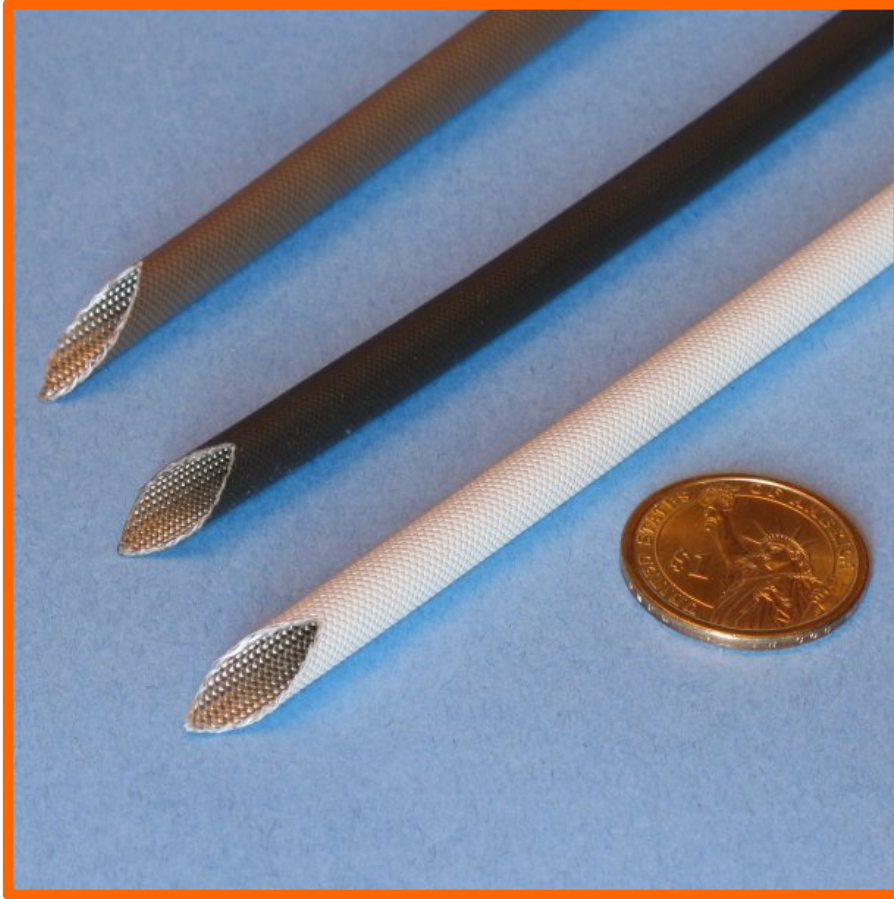
Viton[®] 231 Coated Fiberglass Sleeve: AWG Wire Sized

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