

Basic (1 layer) Insulation ETFE .0015" with .0015" Self-Bonding Overcoat

Product Information

| | |
|-----------------------------------------------------------------------------|-------------------------------------------------------------------------------|
| Temperature Rating: 155°C | Conductor: Tin Plated Copper, Solid or Stranded (ASTM B-33/ASTM B-286) |
| Insulation: DuPont™ Tefzel® ETFE w/Proprietary Self-Bonding Overcoat | Bare Copper and other conductors available |
| Compliances: UL OBTJ2 File No. E206198 | Size Range: UL: 22 AWG – 40 AWG |
| UL 60950-1 (Ed. 2), Annex U. | Voltage: UL: 600 V |
| RoHS Compliant | Breakdown: Approx. 2000 V |
| | OD Tolerances: 22 -24 AWG +0.0015"/-0.0005" |
| | 25-40 AWG +0.001"/-0.0005" |

Insulation Information:

| | | |
|---------------------------------------|---------------------------------------------------------|---------------------------------------|
| Insulation Type: Fluoropolymer | Thermal: Continuous Operating Temperature, 150°C | UL Flammability Rating: V-0 |
| Dielectric Constant: 2.6 | Tensile Strength (psi): 6500 | Elongation (%): 150-300 |
| Abrasion Resistance: Excellent | UV Resistance: Excellent | Chemical Resistance: Excellent |
| Water Resistance: Excellent | Underground Resistance: Excellent | Long Term Stability: Excellent |

ETFE is a Fluoropolymer compound with excellent electrical properties, heat resistance, chemical resistance, and abrasion resistance. Commonly used in winding wires, UL AWM wires, and medical applications

Self-Bonding Overcoat Information:

The Self-Bonding Overcoat is a proprietary material intended for bonding the product together and it should not be considered an additional layer of insulation nor should it be used for any additional electrical or mechanical properties

Insulated Wire Information:

| Part Number | AWG | Conductor OD | | Insulated Wire OD w/Self-Bonding Overcoat | |
|---------------------|-----|--------------|-------|-------------------------------------------|------|
| | | Inches | MM | Inches | MM |
| S22A01TX-1.5-SB-1.5 | 22 | 0.0253 | 0.643 | 0.0313 | 0.80 |
| S23A01TX-1.5-SB-1.5 | 23 | 0.0226 | 0.574 | 0.0286 | 0.73 |
| S24A01TX-1.5-SB-1.5 | 24 | 0.0201 | 0.511 | 0.0261 | 0.66 |
| S25A01TX-1.5-SB-1.5 | 25 | 0.0179 | 0.455 | 0.0239 | 0.61 |
| S26A01TX-1.5-SB-1.5 | 26 | 0.0159 | 0.404 | 0.0219 | 0.56 |
| S27A01TX-1.5-SB-1.5 | 27 | 0.0142 | 0.361 | 0.0202 | 0.51 |
| S28A01TX-1.5-SB-1.5 | 28 | 0.0126 | 0.320 | 0.0186 | 0.47 |
| S29A01TX-1.5-SB-1.5 | 29 | 0.0113 | 0.287 | 0.0173 | 0.44 |
| S30A01TX-1.5-SB-1.5 | 30 | 0.0100 | 0.254 | 0.0160 | 0.40 |
| S31A01TX-1.5-SB-1.5 | 31 | 0.0089 | 0.226 | 0.0149 | 0.38 |
| S32A01TX-1.5-SB-1.5 | 32 | 0.0080 | 0.203 | 0.0140 | 0.36 |
| S33A01TX-1.5-SB-1.5 | 33 | 0.0071 | 0.180 | 0.0131 | 0.33 |
| S34A01TX-1.5-SB-1.5 | 34 | 0.0063 | 0.160 | 0.0123 | 0.31 |
| S35A01TX-1.5-SB-1.5 | 35 | 0.0056 | 0.142 | 0.0116 | 0.29 |
| S36A01TX-1.5-SB-1.5 | 36 | 0.0050 | 0.127 | 0.0110 | 0.28 |
| S37A01TX-1.5-SB-1.5 | 37 | 0.0045 | 0.114 | 0.0105 | 0.27 |
| S38A01TX-1.5-SB-1.5 | 38 | 0.0040 | 0.102 | 0.0100 | 0.25 |
| S39A01TX-1.5-SB-1.5 | 39 | 0.0035 | 0.089 | 0.0095 | 0.24 |
| S40A01TX-1.5-SB-1.5 | 40 | 0.0031 | 0.079 | 0.0091 | 0.23 |

Bare Core Wire Specifications:

DCR per 10' @ 20°C

| AWG | Core Wire Diameter | | | DC Resistance | | |
|-----|--------------------|-----------|-----------|---------------|-----------|-----------|
| | Min. Dia. | Nom. Dia. | Max. Dia. | Min. Res.* | Nom. Res. | Max. Res. |
| 22 | .0250 | .0253 | .0261 | .1559 | .1685 | .1781 |
| 23 | .0224 | .0226 | .0233 | .1956 | .2112 | .2219 |
| 24 | .0199 | .0201 | .0207 | .2478 | .2669 | .2811 |
| 25 | .0177 | .0179 | .0184 | .3137 | .3366 | .3554 |
| 26 | .0157 | .0159 | .0164 | .3948 | .4266 | .4517 |
| 27 | .0141 | .0142 | .0146 | .4982 | .5349 | .5600 |
| 28 | .0125 | .0126 | .0130 | .6283 | .6793 | .7125 |
| 29 | .0112 | .0113 | .0116 | .7892 | .8446 | .8875 |
| 30 | .0099 | .0100 | .0103 | 1.0009 | 1.0785 | 1.1359 |
| 31 | .0088 | .0089 | .0092 | 1.2546 | 1.3616 | 1.4376 |
| 32 | .0079 | .0080 | .0083 | 1.5414 | 1.6852 | 1.7838 |
| 33 | .0070 | .0071 | .0074 | 1.9392 | 2.1395 | 2.2720 |
| 34 | .0062 | .0063 | .0066 | 2.4378 | 2.7173 | 2.8962 |
| 35 | .0055 | .0056 | .0059 | 3.0506 | 3.4391 | 3.6803 |
| 36 | .0049 | .0050 | .0053 | 3.7803 | 4.3140 | 4.6368 |
| 37 | .0044 | .0045 | .0048 | 4.6089 | 5.3259 | 5.7505 |
| 38 | .0039 | .0040 | .0043 | 5.7431 | 6.7406 | 7.3195 |
| 39 | .0034 | .0035 | .0038 | 7.3539 | 8.8041 | 9.6306 |
| 40 | .0030 | .0031 | .0034 | 9.1860 | 11.2227 | 12.3700 |

*ASTM B33 sets no standard for minimum resistance. This is only an indicator to investigate other aspects such as tin-thickness and tin coverage.