

RUBADUEWIRE

Basic (1 layer) Insulation FEP .002"

Product Information

Temperature Rating: 155°C

Insulation: DuPont™ Teflon® FEP

Compliances: UL OBJT2 File No. E206198

UL 60950-1 (Ed.2), Annex U

System approvals: UL 1446

RXT-2 Class F

RoHS Compliant

Conductor: Tin plated copper, Solid or Stranded (ASTM B-33/ASTM B-286)

Bare copper and other conductors available

Size Range: 18 AWG – 40 AWG

Voltage: 600 V

Breakdown: Approx. 3000 V

OD Tolerances: 18 -24 AWG +0.0015"/-0.001"

25-40 AWG +0.001"/-0.0005"

Insulation Information:

Insulation Type: Fluoropolymer

Dielectric Constant: 2.03

Abrasion Resistance: Good

Chemical Resistance: Excellent

Underground Resistance: Excellent

Thermal: Continuous Operating Temperature, 200°C

Tensile Strength (psi): 3000+

Bondability: Poor

Water Resistance: Excellent

Long Term Stability: Excellent

UL Flammability Rating: V-0

Elongation (%): 300

UV Resistance: Excellent

FEP is a Fluoropolymer compound with exceptional dielectric properties, heat resistance, chemical resistance, and flexibility. Commonly used in winding wires, UL AWM wires, and cable jacketing.

Insulated Wire Information:

| Part Number | AWG | Conductor OD | | Insulated Wire OD | | Weight LB/KFT |
|-------------|-----------|--------------|-------|-------------------|-------|---------------|
| | | Inches | MM | Inches | MM | |
| S18A01FX-2 | 18 | 0.0403 | 1.024 | 0.0443 | 1.125 | 5.17 |
| S18A19FX-2 | 18(19/30) | 0.0476 | 1.209 | 0.0516 | 1.311 | 6.17 |
| S20A01FX-2 | 20 | 0.0320 | 0.813 | 0.0360 | 0.914 | 3.29 |
| S20A19FX-2 | 20(19/32) | 0.0385 | 0.978 | 0.0425 | 1.080 | 3.99 |
| S22A01FX-2 | 22 | 0.0253 | 0.643 | 0.0293 | 0.744 | 2.10 |
| S22A19FX-2 | 22(19/32) | 0.0295 | 0.749 | 0.0335 | 0.851 | 2.52 |
| S24A01FX-2 | 24 | 0.0201 | 0.511 | 0.0241 | 0.612 | 1.35 |
| S24A19FX-2 | 24(19/36) | 0.0242 | 0.615 | 0.0282 | 0.716 | 1.63 |
| S25A01FX-2 | 25 | 0.0179 | 0.455 | 0.0219 | 0.556 | 1.18 |
| S26A01FX-2 | 26 | 0.0159 | 0.404 | 0.0199 | 0.505 | 0.89 |
| S27A01FX-2 | 27 | 0.0142 | 0.361 | 0.0182 | 0.462 | 0.71 |
| S28A01FX-2 | 28 | 0.0126 | 0.320 | 0.0166 | 0.422 | 0.57 |
| S29A01FX-2 | 29 | 0.0113 | 0.287 | 0.0153 | 0.389 | 0.47 |
| S30A01FX-2 | 30 | 0.0100 | 0.254 | 0.0140 | 0.356 | 0.38 |
| S31A01FX-2 | 31 | 0.0089 | 0.226 | 0.0129 | 0.328 | 0.31 |
| S32A01FX-2 | 32 | 0.0080 | 0.203 | 0.0120 | 0.305 | 0.25 |
| S33A01FX-2 | 33 | 0.0071 | 0.180 | 0.0111 | 0.282 | 0.21 |
| S34A01FX-2 | 34 | 0.0063 | 0.160 | 0.0103 | 0.262 | 0.17 |
| S35A01FX-2 | 35 | 0.0056 | 0.142 | 0.0096 | 0.244 | 0.14 |
| S36A01FX-2 | 36 | 0.0050 | 0.127 | 0.0090 | 0.229 | 0.12 |
| S37A01FX-2 | 37 | 0.0045 | 0.114 | 0.0085 | 0.216 | 0.10 |
| S38A01FX-2 | 38 | 0.0040 | 0.102 | 0.0080 | 0.203 | 0.08 |
| S39A01FX-2 | 39 | 0.0035 | 0.089 | 0.0075 | 0.191 | 0.07 |
| S40A01FX-2 | 40 | 0.0031 | 0.079 | 0.0071 | 0.180 | 0.06 |

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. |
| 16 | 0.0503 | 0.0508 | 0.0523 | 0.0388 | 0.0418 | 0.0440 |
| 17 | 0.0448 | 0.0453 | 0.0467 | 0.0487 | 0.0526 | 0.0555 |
| 18 | 0.0399 | 0.0403 | 0.0415 | 0.0617 | 0.0664 | 0.0699 |
| 19 | 0.0355 | 0.0359 | 0.0370 | 0.0776 | 0.0837 | 0.0883 |
| 20 | 0.0317 | 0.0320 | 0.0330 | 0.0975 | 0.1053 | 0.1108 |
| 21 | 0.0282 | 0.0285 | 0.0294 | 0.1229 | 0.1328 | 0.1400 |
| 22 | 0.0250 | 0.0253 | 0.0261 | 0.1559 | 0.1685 | 0.1781 |
| 23 | 0.0224 | 0.0226 | 0.0233 | 0.1956 | 0.2112 | 0.2219 |
| 24 | 0.0199 | 0.0201 | 0.0207 | 0.2478 | 0.2669 | 0.2811 |
| 25 | 0.0177 | 0.0179 | 0.0184 | 0.3137 | 0.3366 | 0.3554 |
| 26 | 0.0157 | 0.0159 | 0.0164 | 0.3948 | 0.4266 | 0.4517 |
| 27 | 0.0141 | 0.0142 | 0.0146 | 0.4982 | 0.5349 | 0.5600 |
| 28 | 0.0125 | 0.0126 | 0.0130 | 0.6283 | 0.6793 | 0.7125 |
| 29 | 0.0112 | 0.0113 | 0.0116 | 0.7892 | 0.8446 | 0.8875 |
| 30 | 0.0099 | 0.0100 | 0.0103 | 1.0009 | 1.0785 | 1.1359 |
| 31 | 0.0088 | 0.0089 | 0.0092 | 1.2546 | 1.3616 | 1.4376 |
| 32 | 0.0079 | 0.0080 | 0.0083 | 1.5414 | 1.6852 | 1.7838 |
| 33 | 0.0070 | 0.0071 | 0.0074 | 1.9392 | 2.1395 | 2.2720 |
| 34 | 0.0062 | 0.0063 | 0.0066 | 2.4378 | 2.7173 | 2.8962 |
| 35 | 0.0055 | 0.0056 | 0.0059 | 3.0506 | 3.4391 | 3.6803 |
| 36 | 0.0049 | 0.0050 | 0.0053 | 3.7803 | 4.3140 | 4.6368 |
| 37 | 0.0044 | 0.0045 | 0.0048 | 4.6089 | 5.3259 | 5.7505 |
| 38 | 0.0039 | 0.0040 | 0.0043 | 5.7431 | 6.7406 | 7.3195 |
| 39 | 0.0034 | 0.0035 | 0.0038 | 7.3539 | 8.8041 | 9.6306 |
| 40 | 0.0030 | 0.0031 | 0.0034 | 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.