

**SEALPIC®-F**

RDUP PE-39

**SPECIFICATIONS**

|                             |   |
|-----------------------------|---|
| <b>Conductor</b>            | Solid annealed copper   |
| <b>Insulation</b>           | Solid polyolefin; color coded in accordance with industry standards   |
| <b>Twisted Pairs</b>        | Individual insulated conductors; twisted into pairs with varying lay lengths; specific color combinations provide pair identification                     |
| <b>≤ 25-Pair Core</b>       | Pairs are assembled into a cylindrical core   |
| <b>&gt; 25-Pair Core</b>    | Cables larger than 25-pair are assembled into units, which are then used to assemble the core; units are identifiable using color-coded binders           |
| <b>Filling Compound</b>     | 80°C ETPR compound, completely filling the interstices between the pairs and under the core wrap  |
| <b>Core Wrap</b>            | Non-hygroscopic, dielectric tape applied over the core  |
| <b>Shield</b>               | Corrugated, copolymer coated, 8 mil aluminum tape applied longitudinally with an overlap; flooded shield interfaces                                       |
| <b>Jacket</b>               | Black, polyethylene   |
| <b>Jacket Marking</b>       | Identifying information includes a telephone handset, cable code, pair count, AWG, date of manufacture and sequential length markings at 2 foot intervals |
| <b>Standards Compliance</b> | ANSI/ICEA S-84-608-2007<br>RDUP 7 CFR 1755.390 (PE-39)<br>RoHS-compliant  |

**PRODUCT DESCRIPTION**

SEALPIC®-F Cables are designed for low risk direct burial or duct applications. SEALPIC-F may be used aerially, but must be attached to a support strand.

**APPLICATIONS**

- Low risk direct burial
- Underground conduit
- Lashed aerial

**FEATURES**

- Twisted into pairs with varying lay lengths
- Core wrap
- Filled core
- Fully flooded shield interfaces
- Black, polyethylene jacket

**BENEFITS**

- Minimizes crosstalk
- Provides thermal protection
- Moisture resistant
- Inhibits corrosion and water migration
- Provides a tough, protective covering designed to withstand exposure to direct sunlight, atmospheric temperature changes and stresses expected in standard installations

**ELECTRICAL SPECIFICATIONS**

| Number of Pairs | Average Mutual Capacitance @ 1000 Hz<br>nF/mile (nF/km) | Capacitance Unbalance<br>Pair to Pair @ 1 kHz |                                       | Capacitance Unbalance<br>Pair to Ground @ 1 kHz |   |
|-----------------|---|---|---------------------------------------|---|---|
|                 |   | Maximum Individual<br>pF @ 1 kft (pF @ 1 km)  | Maximum RMS<br>pF @ 1 kft (pF @ 1 km) | Maximum Individual<br>pF @ 1 kft (pF @ 1 km)    | Maximum Average<br>pF @ 1 kft (pF @ 1 km) |
| 12 or less      | 83 ± 7 (52 ± 4)   | 80 (145)                                      | -                                     | 800 (2,625)                                     | -   |
| Over 12         | 83 ± 4 (52 ± 2)   | 80 (145)                                      | 25 (45)                               | 800 (2,625)                                     | 175 (574)                                 |

| Conductor Size<br>AWG (mm) | Minimum Insulation<br>Resistance @ 68°F (20°C)<br>gigohm-mile (gigohm-km) | Maximum Average<br>Attenuation*<br>772 kHz @ 68°F (20°C)<br>dB/kft (dB/km) | Maximum Conductor<br>Resistance @ 68°F (20°C)<br>Ohms/sheath<br>mile (km) | DC Resistance Unbalance<br>Maximum % |                    | Dielectric Strength<br>DC Potential - Volts |                        |
|----------------------------|---|--|---|--------------------------------------|--------------------|---|------------------------|
|                            |   |  |   | Average                              | Individual<br>Pair | Conductor<br>to Conductor                   | Conductor<br>to Shield |
| 19 (0.90)                  | 1.0 (1.6)   | 2.8 (9.2)  | 45.0 (28.0)   | 1.5                                  | 5.0                | 7,000                                       | 15,000                 |
| 22 (0.64)                  | 1.0 (1.6)   | 4.0 (13.1)   | 91.0 (56.5)   | 1.5                                  | 5.0                | 5,000                                       | 15,000                 |
| 24 (0.51)                  | 1.0 (1.6)   | 5.0 (16.4)   | 144.0 (89.5)  | 1.5                                  | 5.0                | 4,000                                       | 15,000                 |

\*For cables of 12-pair or less, the maximum average attenuation may be increased by 10% over the values shown.

**Minimum Near End Crosstalk (NEXT)  
@ 772 kHz**

|                          |    |
|--------------------------|----|
| PSWUNEXT Mean (dB)       | 47 |
| PSWUNEXT Worst Pair (dB) | 42 |

**Minimum Far End Crosstalk (FEXT)  
@ 772 kHz**

|                              |    |    |    |
|------------------------------|----|----|----|
| Conductor Size (AWG)         | 19 | 22 | 24 |
| PSELFEXT Mean (dB/kft)       | 51 | 49 | 49 |
| PSELFEXT Worst Pair (dB/kft) | 45 | 43 | 43 |

## PART NUMBERS AND PHYSICAL CHARACTERISTICS

| Part Number | Pair Count | AWG (mm)  | Nominal Diameter<br>in (mm) | Approx. Weight<br>lbs/kft (kg/km) | Standard Length<br>ft (m) | Approx.<br>Shipping Weight<br>lbs (kg) | Reel Size<br>F x T x D<br>in |
|-------------|------------|-----------|-----------------------------|-----------------------------------|---------------------------|--|------------------------------|
| 04-026-21   | 6          | 19 (0.90) | 0.54 (14)                   | 140 (210)                         | 5,000 (1,524)             | 810 (365)                              | 44 x 18 x 20                 |
| 04-028-21   | 12         | 19 (0.90) | 0.69 (18)                   | 235 (350)                         | 5,000 (1,524)             | 1,340 (610)                            | 46 x 25 x 20                 |
| 04-031-21   | 25         | 19 (0.90) | 0.92 (23)                   | 440 (655)                         | 5,000 (1,524)             | 2,570 (1,165)                          | 65 x 30 x 32                 |
| 04-034-21   | 50         | 19 (0.90) | 1.22 (31)                   | 810 (1,205)                       | 5,000 (1,524)             | 4,750 (2,155)                          | 78 x 40 x 39                 |
| 04-038-21   | 100        | 19 (0.90) | 1.69 (43)                   | 1,565 (2,330)                     | 2,500 (762)               | 4,525 (2,055)                          | 72 x 35 x 36                 |
| 04-057-21   | 6          | 22 (0.64) | 0.43 (11)                   | 85 (125)                          | 5,000 (1,524)             | 490 (220)                              | 36 x 18 x 14                 |
| 04-059-21   | 12         | 22 (0.64) | 0.53 (14)                   | 135 (200)                         | 5,000 (1,524)             | 785 (355)                              | 44 x 18 x 20                 |
| 04-062-21   | 25         | 22 (0.64) | 0.68 (17)                   | 240 (355)                         | 5,000 (1,524)             | 1,365 (620)                            | 46 x 25 x 20                 |
| 04-065-21   | 50         | 22 (0.64) | 0.89 (23)                   | 425 (630)                         | 5,000 (1,524)             | 2,370 (1,075)                          | 58 x 25 x 20                 |
| 04-069-21   | 100        | 22 (0.64) | 1.19 (30)                   | 780 (1,160)                       | 5,000 (1,524)             | 4,515 (2,050)                          | 72 x 35 x 36                 |
| 04-073-21   | 200        | 22 (0.64) | 1.63 (41)                   | 1,500 (2,230)                     | 2,500 (762)               | 4,365 (1,980)                          | 72 x 35 x 36                 |
| 04-075-21   | 300        | 22 (0.64) | 1.96 (50)                   | 2,205 (3,280)                     | 2,500 (762)               | 6,210 (2,820)                          | 78 x 40 x 39                 |
| 04-077-21   | 400        | 22 (0.64) | 2.23 (57)                   | 2,890 (4,300)                     | 1,250 (381)               | 4,225 (1,915)                          | 72 x 35 x 36                 |
| 04-081-21   | 600        | 22 (0.64) | 2.72 (69)                   | 4,295 (6,390)                     | 1,250 (381)               | 6,165 (2,795)                          | 84 x 40 x 42                 |
| 04-083-21   | 900        | 22 (0.64) | 3.30 (84)                   | 6,380 (9,495)                     | 1,250 (381)               | 7,975 (3,615)                          | 96 x 40 x 48                 |
| 04-092-21   | 6          | 24 (0.51) | 0.38 (9.7)                  | 60 (90)                           | 5,000 (1,524)             | 365 (165)                              | 36 x 18 x 14                 |
| 04-094-21   | 12         | 24 (0.51) | 0.46 (12)                   | 95 (140)                          | 5,000 (1,524)             | 585 (265)                              | 44 x 18 x 20                 |
| 04-097-21   | 25         | 24 (0.51) | 0.58 (15)                   | 165 (245)                         | 5,000 (1,524)             | 990 (450)                              | 46 x 25 x 20                 |
| 04-100-21   | 50         | 24 (0.51) | 0.74 (19)                   | 285 (425)                         | 5,000 (1,524)             | 1,630 (740)                            | 52 x 25 x 20                 |
| 04-104-21   | 100        | 24 (0.51) | 0.98 (25)                   | 520 (775)                         | 5,000 (1,524)             | 2,970 (1,345)                          | 65 x 30 x 32                 |
| 04-108-21   | 200        | 24 (0.51) | 1.32 (34)                   | 975 (1,450)                       | 5,000 (1,524)             | 5,575 (2,530)                          | 78 x 40 x 39                 |
| 04-110-21   | 300        | 24 (0.51) | 1.58 (40)                   | 1,420 (2,115)                     | 2,500 (762)               | 4,165 (1,890)                          | 72 x 35 x 36                 |
| 04-112-21   | 400        | 24 (0.51) | 1.79 (46)                   | 1,850 (2,755)                     | 2,500 (762)               | 5,325 (2,415)                          | 78 x 40 x 39                 |
| 04-116-21   | 600        | 24 (0.51) | 2.18 (55)                   | 2,745 (4,085)                     | 1,250 (381)               | 4,045 (1,835)                          | 72 x 35 x 36                 |
| 04-118-21   | 900        | 24 (0.51) | 2.63 (67)                   | 4,050 (6,025)                     | 1,250 (381)               | 5,760 (2,615)                          | 78 x 40 x 39                 |
| 04-120-21   | 1,200      | 24 (0.51) | 3.00 (76)                   | 5,325 (7,925)                     | 1,000 (305)               | 6,025 (2,730)                          | 78 x 40 x 39                 |
| 04-121-21   | 1,500      | 24 (0.51) | 3.35 (85)                   | 6,625 (9,860)                     | 1,000 (305)               | 7,800 (3,540)                          | 96 x 40 x 48                 |
| 04-124-21   | 1,800      | 24 (0.51) | 3.73 (95)                   | 7,870 (11,710)                    | 1,000 (305)               | 9,045 (4,105)                          | 96 x 40 x 48                 |

**FREQUENTLY ASKED QUESTIONS**

Product FAQs for OSP copper cables are available online:  
[SuperiorEssex.com/Comm/productFAQs.aspx](https://www.superioressex.com/Comm/productFAQs.aspx)

**FOR EXTREME RISK ENVIRONMENTS**

For extreme direct burial or lashed aerial installations, this cable is available with the +M feature. See the "Mechanical Protection (+M) for Extreme Risk Environments" in the "Technical Information" section for more information.