

# SEALPIC® – FSF (RUS PE-89)



## Product Description

- SEALPIC®-FSF cables are designed for direct burial or duct applications where protection from moisture is required and aluminum shielding is desired. SEALPIC®-FSF may be used aerially, but must be attached to a support strand.

## Physical Description

- CONDUCTORS:** Solid annealed copper in 19, 22, 24 and 26 AWG.
- INSULATION:** Conductors are dual insulated with an inner layer of foamed, natural polyolefin covered by an outer layer of solid, colored polyolefin. The conductor insulation is color coded in accordance with industry standards.
- TWISTED PAIRS:** Individual conductors are twisted into pairs with varying lay lengths to minimize crosstalk and specific color combinations to provide pair identification.
- CORE ASSEMBLY:** Cables of 25 pairs or less are assembled into a cylindrical core. Cables larger than 25 pairs are assembled into units, which are then used to assemble the core. Units are individually identifiable by color coded unit binders.
- FILLING COMPOUND:** The core assembly is filled with an 80°C ETPR compound, completely filling the interstices between the pairs and under the core wrap.
- CORE WRAP:** A non-hygroscopic, dielectric tape is applied over the core assembly to provide protection for the core.
- SHIELDING:** A corrugated, copolymer coated, 8-mil aluminum tape is applied longitudinally with an overlap. The shield interfaces are flooded.
- JACKET:** A black, linear low-density polyethylene jacket is applied overall. The jacket provides a tough protective covering designed to withstand exposure to direct sunlight, atmospheric temperature changes and stresses expected in standard installations.
- JACKET MARKINGS:** Information such as manufacturer's identification, pair count, AWG, product identification and a telephone handset is printed at 2 ft. intervals on the cable jacket. Sequential footage markings are printed at alternate 2 ft. intervals.
- SEALPIC®-FSF is available with mechanical protection.

## Electrical Specifications

### Average Mutual Capacitance at 1000 Hz

Total Number of Pairs	nF/mile	nF/km
12 or less	83 ± 7	52 ± 4
Over 12	83 ± 4	52 ± 2

Conductor Size		Minimum Insulation Resistance 68° F (20° C)		Max Average Attenuation @ 68° F (20° C) 772 kHz		Max Conductor Resistance @ 68°F (20° C) Ohms		Resistance Unbalance Maximum		Dielectric Strength DC Potential – Volts	
AWG	mm	gigohm/ mile	gigohm/ km	dB/kft	dB/km	mile	km	Ave %	Individual Pair %	Cdr. to Cdr.	Cdr. to Grnd.
19	0.90	1.0	1.6	3.2	10.5	45.0	28.0	1.5	5.0	4,500	10,000
22	0.64	1.0	1.6	4.5	14.8	91.0	56.6	1.5	5.0	3,600	10,000
24	0.50	1.0	1.6	5.6	18.4	144.0	89.5	1.5	5.0	3,000	10,000
26	0.40	1.0	1.6	7.0	23.3	232.0	144.0	1.5	5.0	2,400	10,000

Minimum Near End Crosstalk (NEXT) at				Capacitance Unbalance Pair to Pair				
				Pairs	Maximum Individual	Maximum RMS		
					pF/kft	pF/km	pF/kft	pF/km
150 kHz								
772 kHz								
P.S. WUNEXT mean (dB)				58				
P.S. WUNEXT worst pair (dB)				53				
12 or less				80	145	—	—	
more than 12				80	145	25	45	
Minimum Far End Crosstalk at 150 kHz				Capacitance Unbalance Pair to Ground				
				Pairs	Maximum Individual	Maximum Average		
					pF/kft	pF/km	pF/kft	pF/km
12 or less					800	2625	—	—
more than 12					800	2625	175	574
P.S. ELFEXT mean (dB/kft)				65	63	63	61	
P.S. ELFEXT worst pair (dB/kft)				59	57	57	57	
19				22	24	26		
P.S. ELFEXT mean (dB/kft)				51	49	49	47	
P.S. ELFEXT worst pair (dB/kft)				45	43	43	43	

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## Part Numbers and Physical Characteristics

Part #	Pair Count	Nominal O.D.	Approx. Weight	Standard Length	Approx. Shipping Weight	Standard Reel Size
		in (mm)	lbs/kft (kg/km)	ft (m)	lbs (kg)	F x T x D
<b>19 AWG (0.90 mm)</b>						
09-026-02	6	0.50 (13)	125 (186)	5000 (1530)	735 (333)	44 x 18 x 20
09-028-02	12	0.60 (15)	195 (290)	5000 (1530)	1140 (517)	46 x 25 x 20
09-031-02	25	0.79 (20)	360 (536)	5000 (1530)	2045 (927)	58 x 25 x 20
09-034-02	50	1.04 (26)	665 (989)	5000 (1530)	3950 (1791)	72 x 36 x 36
09-038-02	100	1.38 (35)	1235 (1838)	2500 (760)	3375 (1531)	62 x 30 x 24
<b>22 AWG (0.64 mm)</b>						
09-057-02	6	0.40 (10)	75 (112)	5000 (1530)	440 (200)	36 x 18 x 14
09-059-02	12	0.48 (12)	115 (171)	5000 (1530)	685 (311)	44 x 18 x 20
09-062-02	25	0.61 (15)	200 (298)	5000 (1530)	1165 (528)	46 x 25 x 20
09-065-02	50	0.78 (20)	355 (528)	5000 (1530)	2020 (916)	58 x 25 x 20
09-069-02	100	1.03 (26)	655 (975)	5000 (1530)	3900 (1769)	72 x 36 x 36
09-073-02	200	1.39 (35)	1235 (1838)	2500 (760)	3375 (1531)	62 x 30 x 24
09-075-02	300	1.6 (42)	1815 (2701)	1250 (380)	2555 (1159)	62 x 30 x 24
09-077-02	400	1.89 (48)	2380 (3541)	1250 (380)	3265 (1481)	62 x 30 x 24
09-081-02	600	2.29 (58)	3525 (5245)	1250 (380)	5030 (2281)	72 x 36 x 36
09-083-02	900	2.77 (70)	5220 (7767)	1250 (380)	7700 (3492)	96 x 40 x 48
09-085-02	1200	3.15 (80)	6875 (10229)	1250 (380)	9770 (4431)	96 x 40 x 48
<b>24 AWG (0.50 mm)</b>						
09-092-02	6	0.37 (9)	60 (89)	5000 (1530)	345 (156)	30 x 18 x 12
09-094-02	12	0.43 (11)	85 (126)	5000 (1530)	490 (222)	36 x 18 x 14
09-097-02	25	0.53 (13)	145 (216)	5000 (1530)	835 (379)	44 x 18 x 20
09-100-02	50	0.67 (17)	245 (365)	5000 (1530)	1390 (630)	46 x 25 x 20
09-104-02	100	0.86 (22)	435 (647)	5000 (1530)	2420 (1098)	58 x 25 x 20
09-108-02	200	1.15 (29)	820 (1220)	5000 (1530)	4725 (2143)	72 x 36 x 36
09-110-02	300	1.38 (35)	1190 (1771)	2500 (760)	3180 (1442)	52 x 25 x 20
09-112-02	400	1.56 (40)	1560 (2321)	2500 (760)	4145 (1880)	58 x 25 x 20
09-116-02	600	1.89 (48)	2300 (3422)	1250 (380)	3165 (1435)	62 x 30 x 24
09-118-02	900	2.26 (57)	3370 (5014)	1250 (380)	4835 (2193)	72 x 36 x 36
09-120-02	1200	2.58 (66)	4440 (6606)	1250 (380)	5235 (2374)	84 x 40 x 42
09-121-02	1500	2.87 (73)	5515 (8206)	1000 (305)	6215 (2819)	78 x 40 x 39
09-124-02	1800	3.13 (80)	6590 (9805)	1000 (305)	7385 (3349)	84 x 40 x 42
09-125-02	2100	3.41 (87)	7725 (11494)	1000 (305)	8900 (4036)	96 x 40 x 48
09-126-02	2400	3.60 (91)	8735 (12997)	1000 (305)	9910 (4494)	96 x 40 x 48
<b>26 AWG (0.40 mm)</b>						
09-132-02	25	0.45 (11)	100 (149)	5000 (1530)	610 (277)	44 x 18 x 20
09-135-02	50	0.56 (14)	170 (253)	5000 (1530)	1015 (460)	46 x 25 x 20
09-139-02	100	0.72 (18)	290 (431)	5000 (1530)	1655 (751)	52 x 25 x 20
09-143-02	200	0.95 (24)	540 (803)	5000 (1530)	2990 (1356)	62 x 30 x 24
09-145-02	300	1.10 (28)	765 (1138)	5000 (1530)	4450 (2018)	72 x 36 x 36
09-147-02	400	1.26 (32)	1005 (1495)	2500 (760)	2800 (1270)	62 x 30 x 24
09-151-02	600	1.50 (38)	1465 (2180)	2500 (760)	4285 (1943)	72 x 36 x 36
09-153-02	900	1.79 (45)	2135 (3177)	1250 (380)	2955 (1340)	62 x 30 x 24
09-155-02	1200	2.04 (52)	2800 (4166)	1250 (380)	4125 (1871)	72 x 36 x 36
09-156-02	1500	2.29 (58)	3500 (5208)	1250 (380)	5000 (2268)	72 x 36 x 36
09-157-02	1800	2.49 (63)	4175 (6212)	1250 (380)	5920 (2685)	78 x 40 x 39
09-159-02	2400	2.87 (73)	5545 (8250)	1250 (380)	8105 (3676)	96 x 40 x 48
09-164-02	3600	3.36 (85)	8000 (11903)	1000 (305)	9175 (4161)	96 x 40 x 48

**Standards Compliance:**

ANSI/ICEA S-84-608-2002; RUS 7 CFR 1755.890 (PE-89)