

## Firewall® SIS Switchboard Wire (XLPE)

90°C\*, 600 Volt  
Class 1E Nuclear  
NEC Type SIS  
UL Listed\*\*

Spec. RSS-4-002

### Scope

Firewall® SIS is a one conductor, unjacketed, nuclear Class 1E Switchboard Wire. Its tough thermoset construction allows for its use in demanding applications without additional jacketing protection. It is

intended for low voltage applications and may be installed in switchboards, panel boards or other electrical apparatus where superior performance is required.

### Features

- Thermoset insulation for enhanced thermal stability
- Specially formulated insulation for superior long term water resistance
- Extremely flame retardant
- Nuclear qualified with a minimum 40-year thermal life expectancy at 90°C
- Radiation resistant (up to 200 megarads)
- Full traceability
- Excellent mechanical properties
- Tin-coated copper conductors for improved terminations and corrosion resistance
- All cables pass a wet dielectric (tank) test to verify insulation integrity
- Easy strippability for installation ease
- Low surface coefficient of friction insures installation ease with reduced pulling tension required

### Performance Standards

- Insulation in accordance with ICEA standards S-66-524
- Class 1E qualified in accordance with IEEE-383 1974 and IEEE-323 (Rockbestos Reports QR-5804 or QR-5805)
- Wire passes the vertical flame tests specified in IEEE-383 1974 para. 2.5.6 (ICEA S-19-81 Section 6.19.6) and UL VW-1
- Quality Assurance program in accordance with 10 CFR 50 Appendix B
- UL listed as Type SIS for sizes 14 AWG through 4/0 AWG (UL standard 44)

### Construction

**Conductor:**

Annealed, tin-coated copper, (available in various stranding classifications)

**Insulation:**

Proprietary heat, moisture and radiation resistant, flame retardant crosslinked polyethylene

\* Rated 90°C for normal operation in wet and dry locations, 130°C for emergency overload conditions, and 250°C for short circuit conditions. A 90°C dry rating must be used when the National Electrical Code applies.

\*\* 14 AWG & Larger.

# Firewall® SIS Switchboard Wire

(XLPE)

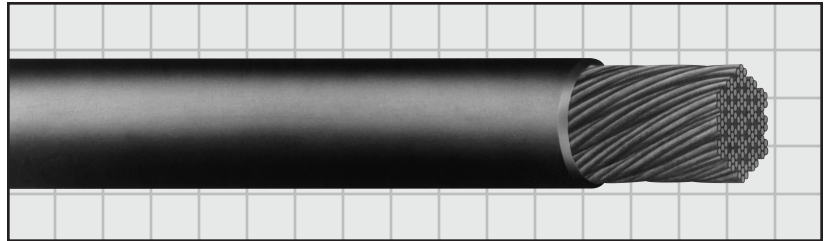
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## Stranded

Product Code	Conductor Size (AWG)	Number of Strands	Stranding Class	Insulation Thickness		Nominal Diameter		Approximate Net Weight (Lbs/M')
				(Inch)	(mm)	(Inch)	(mm)	
A82-1186	18	7	"B"	.030	.76	.11	2.79	10
A82-0166	16	7	"B"	.030	.76	.12	3.05	13
A82-0146	14	7	"B"	.030	.76	.13	3.30	19
A82-0126	12	7	"B"	.030	.76	.15	3.81	28
A82-0116	10	7	"B"	.030	.76	.18	4.57	40
A82-1086	8	7	"B"	.045	1.14	.24	6.10	70
A82-1066	6	7	"B"	.060	1.52	.30	7.62	110
A82-1046	4	7	"B"	.060	1.52	.35	8.89	170
A82-1026	2	7	"B"	.060	1.52	.41	10.41	250
A82-1016	1	19	"B"	.080	2.03	.49	12.45	325
A82-1100	1/0	19	"B"	.080	2.03	.53	13.46	400
A82-1200	2/0	19	"B"	.080	2.03	.57	14.48	490
A82-1300	3/0	19	"B"	.080	2.03	.62	15.75	610
A82-1400	4/0	19	"B"	.080	2.03	.68	17.27	755

## Flexible Strand

A83-0186	18	16	"K"	.030	.76	.11	2.79	10
A83-0166	16	26	"K"	.030	.76	.12	3.05	14
A83-0146	14	41	"K"	.030	.76	.14	3.56	19
A83-0126	12	65	"K"	.030	.76	.15	3.81	28
A83-0116	10	105	"K"	.030	.76	.19	4.83	43
A83-0086	8	133	"H"	.045	1.14	.26	6.60	72
A83-0066	6	133	"H"	.060	1.52	.33	8.38	115
A83-0046	4	133	"H"	.060	1.52	.38	9.65	175
A83-0026	2	133	"H"	.060	1.52	.46	11.68	260
A83-0016	1	259	"H"	.080	2.03	.53	13.46	340
A83-0100	1/0	259	"H"	.080	2.03	.58	14.73	420
A83-0200	2/0	259	"H"	.080	2.03	.63	16.00	520
A83-0300	3/0	259	"H"	.080	2.03	.69	17.53	640
A83-0400	4/0	259	"H"	.080	2.03	.76	19.30	795

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\*\* 14 AWG & Larger.