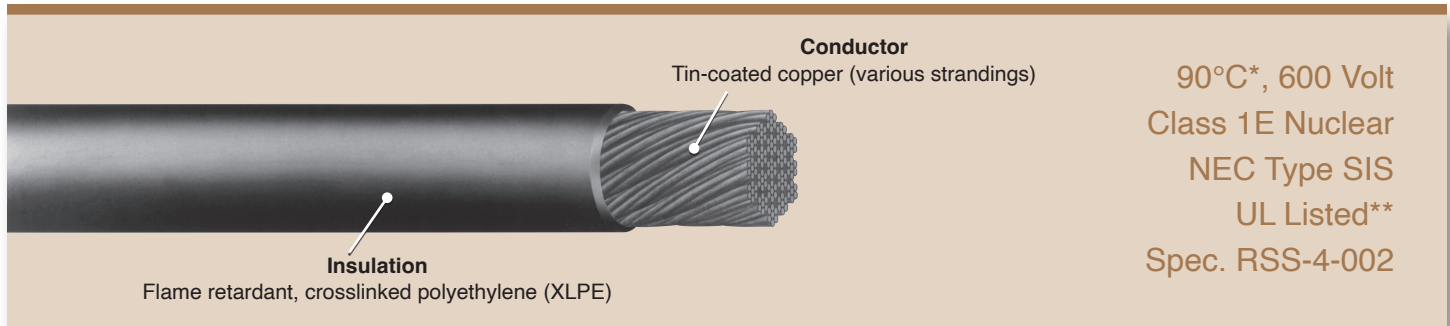


# Firewall® SIS

## Switchboard Wire

(XLPE)



### 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 S-66-524
- Class 1E qualified in accordance with IEEE 383-1974 and IEEE 323-1974 (RSCC 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

### 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 - 4/0 AWG rated for Type SIS

### 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.

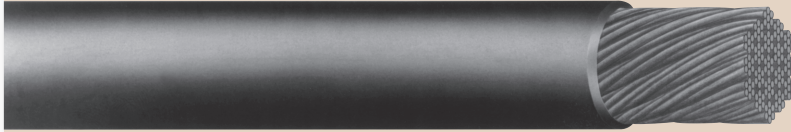


Made in the USA



Marmon Electrical  
A Berkshire Hathaway Company

# Firewall® SIS Switchboard Wire (XLPE)



90°C\*, 600 Volt  
Class 1E Nuclear  
NEC Type SIS  
UL Listed\*\*  
Spec. RSS-4-002

## Stranded

Product Code	Conductor Size	Number of Strands	Insulation Thickness (Mils)	Nominal Overall Diameter (Inch)	Approximate Net Weight (Lbs/1000 Ft)	Bend Radius		Maximum Straight Run Pull Tension (Lbs By Conductors)	Nominal Heat of Combustion (BTUs/Ft)
						Permanent Training (Inch)	During Installation (Inch)		
A82-1186	18 AWG	7	30	0.11	10	0.50	1.00	12	60
A82-0166	16 AWG	7	30	0.12	13	0.50	1.00	20	64
A82-0146	14 AWG	7	30	0.14	19	0.75	1.25	32	76
A82-0126	12 AWG	7	30	0.16	28	0.75	1.50	52	94
A82-0116	10 AWG	7	30	0.18	40	0.75	1.50	83	131
A82-1086	8 AWG	7	45	0.24	70	1.00	2.00	132	228
A82-1066	6 AWG	7	60	0.31	112	1.25	2.50	209	371
A82-1046	4 AWG	7	60	0.36	167	1.50	3.00	333	456
A82-1026	2 AWG	7	60	0.41	251	1.75	3.50	529	552
A82-1016	1 AWG	7	80	0.49	326	2.00	4.00	670	804
A82-1100	1/0 AWG	19	80	0.53	410	2.25	4.25	843	900
A82-1200	2/0 AWG	19	80	0.57	506	2.50	4.75	1064	996
A82-1300	3/0 AWG	19	80	0.62	612	2.50	5.00	1343	1116
A82-1400	4/0 AWG	19	80	0.68	757	2.75	5.50	90	1248

## Flexible Strand

Product Code	Conductor Size	Number of Strands	Insulation Thickness (Mils)	Nominal Overall Diameter (Inch)	Approximate Net Weight (Lbs/1000 Ft)	Bend Radius		Maximum Straight Run Pull Tension (Lbs By Conductors)	Nominal Heat of Combustion (BTUs/Ft)
						Permanent Training (Inch)	During Installation (Inch)		
A83-0186	18 AWG	16	30	0.11	10	0.50	1.00	12	60
A83-0166	16 AWG	26	30	0.12	14	0.50	1.00	20	73
A83-0146	14 AWG	41	30	0.14	19	0.75	1.25	32	76
A83-0126	12 AWG	65	30	0.16	28	0.75	1.50	52	94
A83-0116	10 AWG	105	30	0.18	42	0.75	1.50	83	105
A83-0086	8 AWG	133	45	0.26	72	1.25	2.25	132	252
A83-0066	6 AWG	133	60	0.33	116	1.50	2.75	209	408
A83-0046	4 AWG	133	60	0.39	174	1.75	3.25	333	504
A83-0026	2 AWG	133	60	0.46	259	2.00	3.75	529	612
A83-0016	1 AWG	259	80	0.54	337	2.25	4.50	670	828
A83-0100	1/0 AWG	259	80	0.59	421	2.50	4.75	843	1044
A83-0200	2/0 AWG	259	80	0.63	512	2.75	5.25	1064	1080
A83-0300	3/0 AWG	259	80	0.69	640	3.00	5.75	1343	1464
A83-0400	4/0 AWG	259	80	0.75	788	3.00	6.00	1691	1608

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\*\* 14 AWG - 4/0 AWG rated for Type SIS



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