PLAINTIFF'S
EXHIBIT
E-182

ROCKBESTOS FIREWALL SIS

High Performance Switchboard Wire



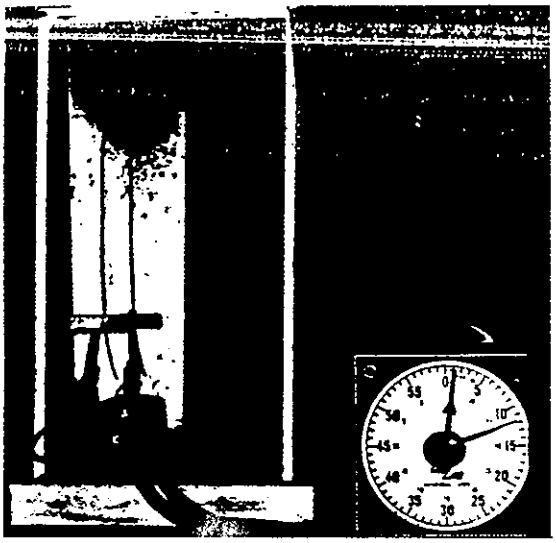
RBB 02930

Rockbestos® Firewall® SIS Switchboard Wire

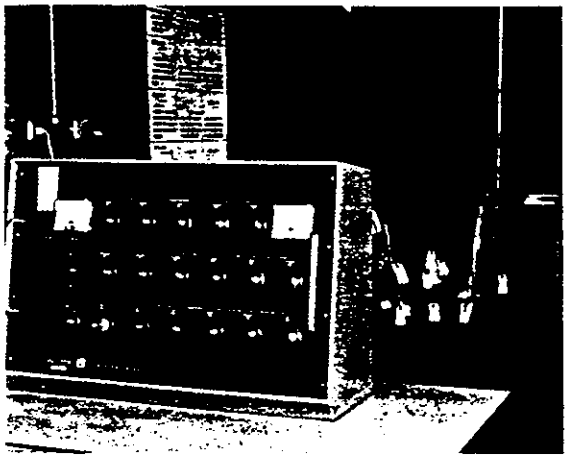
600 Volt – 90° C. (194° F.) UL Listed
For those customers who require more than the UL minimum

Utilities, industrials and other users of switchboard wires are becoming increasingly concerned with quality and performance. To satisfy these demands, Rockbestos offers its superior quality Firewall SIS Switchboard Wire, which is a specially compounded cross-linked polyolefin insulation that incorporates long-term moisture stability, radiation resistance, flame resistance and excellent aging properties.

Passes UL Vertical Test
(Not required by UL for Type SIS)



Long Term Stability in Water
(Not Required by UL for Type SIS)



(two years in 75% water)

Radiation Resistance

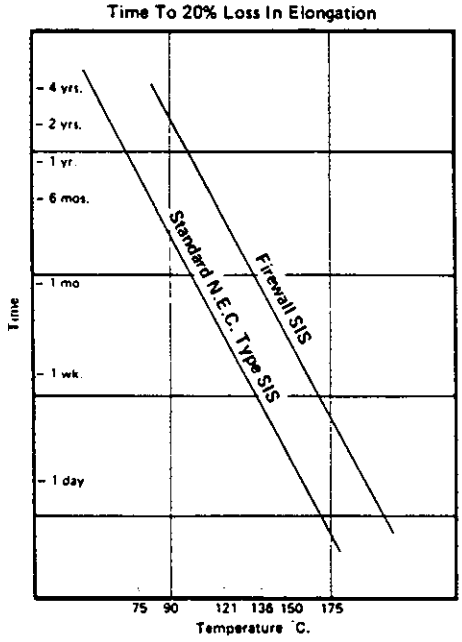
Dielectric Breakdown On Single Conductors

Single conductor samples were bent in a U shape around mandrels of the diameters shown and the U-shaped section then immersed in water. A.C. voltage was then applied until dielectric breakdown occurred. Values are shown only for the two severest bends, since less severe bends generally produced higher values.

Exposure Level	Mandrel Diameters 3X(.45")	1X(.15")
Unexposed	23KV	23KV
5×10^7	35KV	34KV
10^8	30KV	29KV
2×10^8	27KV	27KV

Serviceable After 2×10^8

Excellent Aging



RBB 02931

Dimensional Data

Construction: Solid, stranded or flexible stranded tinned copper insulated with heat, moisture and flame-resistant cross-linked polyolefin. Surface printed with size and UL listing.

Application: Recommended as a general purpose heat, moisture and flame resistant wire for use in wiring switchboards, panel boards or other electrical apparatus where superior performance is required.

Advantages: Resistant to moisture, abrasion, cut through. In addition to meeting all UL requirements, it also passes UL 83 vertical flame test as a superior flame-resistant wire.

Stranded Conductor

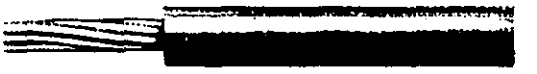


Table SISS

Size	Stranding	Insulation Mils	Nominal O.D.	M Ft. Net Weight	Ampacity*
14	7/.0242	30	.140	20	25
12	7/.0305	30	.160	28	30
10	7/.0385	30	.180	42	40
8	7/.0486	45	.240	70	50
6	7/.0612	60	.320	113	70
4	7/.0772	60	.370	167	90
2	7/.0994	60	.430	251	120
1	19/.0664	80	.470	310	140
1/0	19/.0745	80	.545	398	155
2/0	19/.0837	80	.590	489	185
3/0	19/.0940	80	.640	604	210
4/0	19/.1055	80	.690	750	235

*Ampacity based on 3 conductors in conduit, or enclosed cabinet, 30°C. ambient, at 90°C. conductor temperatures.

Flexible Stranded Conductor



Table SISF

Size	Stranding	Insulation Mils	Nominal O.D.	M Ft. Net Weight	Ampacity*
14	41/.010	30	.140	20	25
12	65/.010	30	.160	28	30
10	105/.010	30	.190	43	40
8	133/.0111	45	.270	75	50
6	133/.0140	60	.340	119	70
4	133/.0177	60	.400	170	90
2	133/.0223	60	.470	254	120
1	259/.0180	80	.515	326	140
1/0	259/.0202	80	.595	412	155
2/0	259/.0227	80	.650	508	185
3/0	259/.0255	80	.710	630	210
4/0	259/.0286	80	.770	780	235

*Ampacity based on 3 conductors in conduit, or enclosed cabinet, 30°C. ambient, at 90°C. conductor temperatures.

NOTE: Also available in solid conductor (Table SIS).

RBB 02932

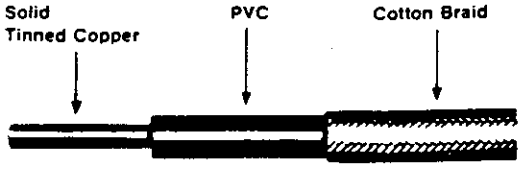
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THE ROCKBESTOS COMPANY
Division of Cerock Wire & Cable Group, Inc.
New Haven, Connecticut 06504 USA

RBB 02933



SWITCHBOARD WIRES

TYPE TBS

600 VOLTS

SW 3-2-78

Solid Switchboard Wire (NEC Type TBS)
Table SPB, 600 Volts, Max. Operating Temp. 90° C

CONSTRUCTION: Solid, stranded or flexible stranded tinned copper insulated with an extrusion of PVC and covered with a flame-proof cotton braid

APPLICATION: General purpose 600 volt switchboard wires. UL listed.

ADVANTAGES: Small diameter, light weight and minimum cost

Size AWG	Stranding	Insulation Mils	Braid Mils	Nominal Finished Diameter Inches	Approx. Net Wgt. in Lbs. per 1000'	Ampacity*
14	Solid	30	16	16	26	25
12	Solid	30	16	18	36	30
10	Solid	30	16	20	50	40
8	Solid	45	17	22	81	50
6	Solid	60	17	32	124	70

Stranded Switchboard Wire (NEC Type TBS)
Table SPBS, 600 Volts, Max. Operating Temp. 90° C

Size AWG	Stranding	Insulation Mils	Braid Mils	Nominal Finished Diameter Inches	Approx. Net Wgt. in Lbs. per 1000'	Ampacity*
14	7/.0242	30	16	17	28	25
12	7/.0305	30	16	19	37	30
10	7/.0385	30	16	21	52	40
8	7/.0486	45	17	.27	85	50
6	7/.0612	60	17	.34	133	70

Flexible Stranded Switchboard Wire (NEC Type TBS)
Table SPBH, 600 Volts, Max. Operating Temp. 90° C

Size AWG	Stranding	Insulation Mils	Braid Mils	Nominal Finished Diameter Inches	Approx. Net Wt. in Lbs. per 1000'	Ampacity*
18	16/.010	30	16	.14	17	17
14	41/.010	30	16	.17	28	25
12	65/.010	30	16	.19	38	30
10	104/.010	30	16	.21	53	40
8	133/.0111	45	17	.30	86	50
6	133/.0140	60	17	.36	146	70

*Ampacity based on 30°C ambient at 90°C conductor temperatures, 3 conductors in conduit, per NEC.

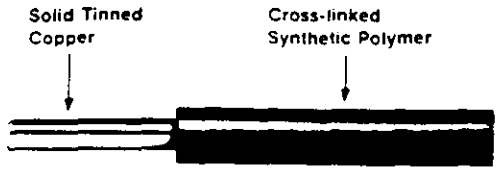
RBB 02934

SWITCHBOARD WIRES

TYPE SIS

600 VOLTS

SW 4-2-78



FIREWALL® SIS

Solid Switchboard Wire (NEC Type SIS)
Table SIS, 600 Volts, Max. Operating Temp. 90° C

CONSTRUCTION: Solid, stranded or flexible stranded tinned copper insulated with heat, moisture and flame-resistant cross-linked synthetic polymer.

APPLICATION: Recommended for application where nuclear power plant class IE cable is required or where superior heat, moisture and flame resistance are required for general purpose wiring of switchboards, panel boards or other electrical apparatus. UL listed.

ADVANTAGES: Resistant to moisture, abrasion, cut through, meets the UL 83 vertical flame test, and passes the IEEE 383 class IE cable test requirements.

Size	Stranding	Insulation Mils	Nominal O.D.	M Ft. Net Weight	Ampacity*
14	Solid	30	13	19	25
12	Solid	30	15	28	30
10	Solid	30	17	41	40
8	Solid	45	23	69	50
6	Solid	60	30	110	70

Stranded Switchboard Wire (NEC Type SIS)
Table SISS, 600 Volts, Operating Temp. 90° C

Size	Stranding	Insulation Mils	Nominal O.D.	M Ft. Net Weight	Ampacity*
14	7/.0242	30	.14	20	25
12	7/.0305	30	.16	28	30
10	7/.0385	30	.18	42	40
8	7/.0486	45	.24	70	50
6	7/.0612	60	.32	113	70
4	7/.0772	60	.37	167	90
2	7/.0994	60	.43	251	120
1	19/.0664	80	.47	310	140
1/0	19/.0745	80	.54	398	155
2/0	19/.0837	80	.59	489	185
3/0	19/.0940	80	.64	604	210
4/0	19/.1055	80	.70	750	235

Flexible Stranded Switchboard Wire (NEC Type SIS)
Table SISF, 600 Volts, Operating Temp. 90° C

Size	Stranding	Insulation Mils	Nominal O.D.	M Ft. Net Weight	Ampacity*
14	41/.010	30	.14	20	25
12	65/.010	30	.16	28	30
10	105/.010	30	.19	43	40
8	133/.0111	45	.27	75	50
6	133/.0140	60	.34	119	70
4	133/.0177	60	.40	170	90
2	133/.0223	60	.47	254	120
1	259/.0180	80	.52	326	140
1/0	259/.0202	80	.60	412	155
2/0	259/.0227	80	.65	508	185
3/0	259/.0255	80	.71	630	210
4/0	259/.0286	80	.77	780	235

*Ampacity based on 3 conductors in conduit, or enclosed cabinet, 30° C. ambient, at 90° C conductor temperatures

RBB 02935