

XL-Dur® (High-Temperature) and SIS (Switchboard) Wire

UL AWM Style 3436 and 3321 XL-Dur — 600V, 150°C (CSA Type CL1251 and AWM)

Product Description

This series of chemically cross-linked polyethylene lead wire is available for higher temperature applications. It is UL Recognized to 600V, 150°C. As with other cross-linked lead wire, it has excellent heat aging characteristics in combination with excellent electrical and physical properties.



Stranded tinned copper conductor

UL Type SIS — 600V, 90°C (UL)

Product Description

For wiring switchboards, panelboards, distribution boards, including instrument and control wiring in these applications. The wire is covered by a separator for improved strippability.



Separator
Stranded tinned copper conductor

Part No.	AWG (stranding) [sq. mm] (stranding in mm)	Insulation Thickness		Nominal OD		Standard Lengths		Standard Unit Weight		Stock Colors (See Color Codes Chart on Page 3.29)
		Inch	mm	Inch	mm	Ft.	m	Lbs.	kg	

600V, 150°C (UL & CSA)

UL AWM Style 3436 and 3321 • CSA Type CL1251 and AWM										
35420	20 (10x30) [.51 (10x.25)]	.030	.76	.102	2.59	500 [†]	152.4	4.5	2.0	9
35418	18 (16x30) [.81 (16x.25)]	.030	.76	.110	2.79	500 [†]	152.4	5.5	2.5	9, 10
						5000 [†]	1524.0	50.0	22.7	10
35416	16 (26x30) [1.32 (26x.25)]	.030	.76	.123	3.12	500 [†]	152.4	7.5	3.4	9, 10
						5000 [†]	1524.0	70.0	31.8	9, 10
35414	14 (41x30) [2.08 (41x.25)]	.030	.76	.138	3.51	500 [†]	152.4	10.0	4.5	9, 10
						5000 [†]	1524.0	95.0	43.2	9, 10
35412	12 (65x30) [3.29 (65x.25)]	.030	.76	.153	3.89	500 [†]	152.4	14.5	6.6	9, 10
						5000 [†]	1524.0	140.0	63.6	9, 10
35410	10 (65x28) [5.23 (65x.32)]	.030	.76	.177	4.50	500 [†]	152.4	20.0	9.1	9, 10
						5000 [†]	1524.0	210.0	95.5	9, 10

[†]Spools may contain more than one piece. Length may vary ±10% from length shown.

600V, 90°C (UL)

UL Type SIS • VW-1										
31014	14 (41x30) [2.08 (41x.25)]	.030	.76	.144	3.66	2500 [†]	762.2	50.0	22.7	8
						5000 ^{††}	1524.0	105.0	47.7	8
31012	12 (65x30) [3.29 (65x.25)]	.030	.76	.167	4.24	3000 ^{††}	914.4	93.0	42.3	8
31010	10 (65x28) [5.23 (65x.32)]	.030	.76	.184	4.67	2500 [†]	762.2	105.0	47.7	8
31008	8 (133x29) [8.60 (133x.29)]	.045	1.14	.268	6.75	2500 [†]	762.2	190.0	86.4	8
UL Type SIS										
31014N	14 (41x30) [2.08 (41x.25)]	.030	.76	.144	3.66	2500 [†]	762.2	52.5	23.9	8
31012N	12 (65x30) [3.29 (65x.25)]	.030	.76	.167	4.24	2500 [†]	762.2	77.5	35.2	8
31010N	10 (65x28) [5.23 (65x.32)]	.030	.76	.184	4.67	2500 [†]	762.2	107.5	48.9	8
31008N	8 (133x29) [8.60 (133x.29)]	.045	1.14	.268	6.75	2500 [†]	762.2	192.5	87.3	8

[†]Spools may contain more than one piece. Length may vary ±10% from length shown.

^{††}May contain more than one piece. Minimum length of any one piece is 200 ft.

Hypalon®

UL AWM Style 3191 600V, 105°C (CSA Type CL1053)

Product Description

This insulation is chlorosulfonated polyethylene. Hypalon insulation has excellent heat resistance, color stability and electrical properties. Hypalon is recommended for motor leads for Class 130(B) insulation systems. It may be considered as an alternative to Silicone rubber to withstand 155°C varnish baking temperatures, but is not suitable for operating temperatures above Class 130(B).

Recommended maximum baking cycles:
24 hours @ 300°F (149°C)



Stranded tinned copper conductor

UL AWM Style 3191, 3192, 3193 600V, 105°C (CSA Type CL1052, 300V)

Product Description

This insulation is chlorosulfonated polyethylene. Hypalon insulation has excellent heat resistance, color stability and electrical properties. Hypalon is recommended for motor leads for Class 130(B) insulation systems. It may be considered as an alternative to Silicone rubber to withstand 155°C varnish baking temperatures, but is not suitable for operating temperatures above Class 130(B).

Recommended maximum baking cycles:
24 hours @ 300°F (149°C)

Stranded Conductor



Stranded tinned copper conductor

Separator Over Conductor



Separator

Hypalon is a DuPont trademark.

Part No.	AWG (stranding) [sq. mm] (stranding in mm)	Insulation Thickness		Nominal OD		Standard Lengths		Standard Unit Weight		Stock Colors (See Color Codes Chart on Page 3.29)
		Inch	mm	Inch	mm	Ft.	m	Lbs.	kg	

600V, 105°C (UL & CSA)

UL AWM Style 3191 • CSA Type CL1053										
34418	18 (16x30) [.81 (16x.25)]	.045	1.14	.142	3.61	100 [†]	30.5	2.3	1.0	2, 10
						500 ^{††}	152.4	8.0	3.6	2, 4, 5, 8-10, 13
						5000 [▼]	1524.0	75.0	34.1	2, 5, 8, 10
34416	16 (26x30) [1.32 (26x.25)]	.045	1.14	.155	3.94	100 [†]	30.5	2.8	1.3	2, 10
						500 ^{††}	152.4	10.5	4.8	2, 4, 5, 8-10, 13
						4000 [▼]	1219.2	84.0	38.1	8, 10
34414	14 (41x30) [2.08 (41x.25)]	.045	1.14	.170	4.32	100 [†]	30.5	3.7	1.7	2, 8, 10
						500 ^{††}	152.4	14.0	6.4	2, 5, 8, 10
						4000 [▼]	1219.2	108.0	49.1	8, 10
34412	12 (65x30) [3.29 (65x.25)]	.045	1.14	.190	4.83	100 [†]	30.5	4.6	2.1	2, 8, 10
						500 ^{††}	152.4	17.5	7.9	2, 5, 8, 10, 13
						3000 [▼]	914.4	114.0	51.8	10

[†]100 ft. put-ups are one piece, exact. ^{††}250 ft. and 500 ft. put-ups are exact, may contain 2 pieces max. Min. length 50 ft.
*May contain more than one piece. Minimum length of any one piece is 200 ft.

600V, 105°C (UL) • 300V, 105°C (CSA)

UL AWM Style 3191 • CSA Type CL1052**										
34410	10 (65x28) [5.23 (65x.32)]	.045	1.14	.209	5.31	100 [†]	30.5	6.0	2.7	8, 10
						500 ^{††}	152.4	24.5	11.2	8, 10
						2000 [▼]	609.6	102.0	46.3	8, 10
UL AWM Style 3192 • CSA Type CL1052**										
34408*	8 (84x27) [8.60 (84x.36)]	.060	1.52	.290	7.37	100 [†]	30.5	9.4	4.3	8, 10
						250 ^{††}	76.2	24.8	11.2	8, 10
						1000 [▲]	304.8	136.0	61.8	10
34406*	6 (84x25) [13.66 (84x.46)]	.060	1.52	.343	8.71	100 [†]	30.5	13.7	6.2	8, 10
						250 ^{††}	76.2	32.3	14.7	10
						1000 [▲]	304.8	136.0	61.8	10
34404*	4 (105x24) [21.53 (105x.51)]	.060	1.52	.399	10.14	100 [†]	30.5	19.1	8.7	8, 10
						250 ^{††}	76.2	51.0	23.2	10
						500 ^{††}	152.4	97.0	44.1	10
34403*	3 (133x24) [27.28 (133x.51)]	.060	1.52	.420	10.69	500 ^{††}	152.4	118.0	53.6	10
						100 [†]	30.5	30.3	13.8	8, 10
						250 ^{††}	76.2	70.8	32.2	10
34402*	2 (163x24) [33.43 (163x.51)]	.060	1.52	.454	11.53	500 ^{††}	152.4	139.0	63.2	10
						100 [†]	30.5	30.3	13.8	8, 10
						250 ^{††}	76.2	70.8	32.2	10
UL AWM Style 3193 • CSA Type CL1052**										
34401*	1 (210x24) [43.07 (210x.51)]	.080	2.03	.557	14.15	50 [†]	15.2	18.4	8.4	10
						100 [†]	30.5	43.0	19.5	8, 10
						250 ^{††}	76.2	97.0	44.1	10
34490*	1/0 (262x24) [53.73 (262x.51)]	.080	2.03	.607	15.42	50 [†]	15.2	22.5	10.3	8, 10
						100 [†]	30.5	48.9	22.2	10
						250 ^{††}	76.2	114.8	52.2	10
34400*	2/0 (504x26) [67.85 (504x.41)]	.080	2.03	.668	16.97	50 [†]	15.2	27.6	12.6	8
						100 [†]	30.5	57.9	26.3	10
						250 ^{††}	76.2	139.5	63.4	10
34430*	3/0 (630x26) [84.81 (630x.41)]	.080	2.03	.732	18.59	50 [†]	15.2	38.5	17.5	10
						250 ^{††}	76.2	175.8	79.9	10
34440*	4/0 (805x26) [108.37 (805x.41)]	.080	2.03	.819	20.80	50 [†]	15.2	47.5	21.5	8, 10
						250 ^{††}	76.2	215.0	97.7	10

*Separator over conductor. **CSA requires additional wall thickness in sizes 10 AWG and larger to meet CL1053 requirements.

[†]50 and 100 ft. put-ups are one piece, exact. ^{††}250 and 500 ft. put-ups are exact, may contain 2 pieces max. Min. length 50 ft.

[▲]1000 ft. put-ups exact, may contain 3 pieces max. Minimum length of any one piece is 50 ft.

[▼]May contain more than one piece. Minimum length of any one piece is 200 ft.

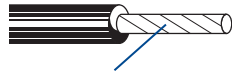


Hypalon®

UL AWM Style 3190 300V, 105°C (CSA Type CL1052)

Product Description

This insulation is chlorosulfonated polyethylene. Hypalon insulation has excellent heat resistance, color stability and electrical properties. Hypalon is recommended for motor leads for Class 130(B) insulation systems. It may be considered as an alternative to Silicone rubber to withstand 155°C varnish baking temperatures, but is not suitable for operating temperatures above Class 130(B).

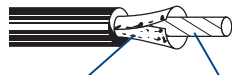


Stranded tinned copper conductor

5000V High-Voltage Hypalon

Product Description

This insulation is chlorosulfonated polyethylene. Hypalon insulation has excellent heat resistance, color stability and electrical properties.



Separator
Stranded tinned copper conductor

Part No.	AWG (stranding) [sq. mm] (stranding in mm)	Insulation Thickness		Nominal OD		Standard Lengths		Standard Unit Weight		Stock Colors (See Color Codes Chart on Page 3.29)
		Inch	mm	Inch	mm	Ft.	m	Lbs.	kg	

300V, 105°C (UL & CSA)

UL AWM Style 3190 • CSA Type CL1052

34922	22 (7x30) [.36 (7x.25)]	.030	.76	.093	2.36	5000 ^{††}	1524.0	35.0	15.9	10
34920	20 (10x30) [.51 (10x.25)]	.030	.76	.100	2.54	5000 ^{††}	1524.0	45.0	20.5	8, 10
34918	18 (16x30) [.81 (16x.25)]	.030	.76	.110	2.79	500 [†]	152.4	6.0	2.7	2, 4, 10
						5000 ^{††}	1524.0	55.0	25.0	2, 10
34916	16 (26x30) [1.32 (26x.25)]	.030	.76	.123	3.12	500 [†]	152.4	8.0	3.6	2, 9, 10
						5000 ^{††}	1524.0	80.0	36.4	10
34914	14 (41x30) [2.08 (41x.25)]	.030	.76	.138	3.51	*	*	*	*	Special Order*

*Contact Belden's Customer Service Department for order requirements. **1-800-BELDEN-1**.

[†]May contain more than one piece. Minimum length of any one piece is 50 ft.

^{††}May contain more than one piece. Minimum length of any one piece is 200 ft.

5000V

High-Voltage

36108	8 (84x27) [8.60 (84x.36)]	.150	3.81	.480	12.19	50 [▲]	15.2	7.9	3.6	10
						500 [◆]	152.4	86.5	39.3	10
36106	6 (84x25) [13.66 (84x.46)]	.150	3.81	.532	13.51	50 [▲]	15.2	10.5	4.8	10
						500 [◆]	152.4	113.5	51.6	10
36104	4 (105x24) [21.53 (105x.51)]	.150	3.81	.588	14.94	50 [▲]	15.2	13.9	6.3	10
						500 [◆]	152.4	148.0	67.3	10
36102	2 (163x24) [33.43 (163x.51)]	.150	3.81	.643	16.33	50 [▲]	15.2	22.4	10.2	10
						500 [◆]	152.4	194.0	88.2	10
36101	1 (210x24) [43.07 (210x.51)]	.150	3.81	.700	17.78	50 [▲]	15.2	26.4	12.0	10
						250 [◆]	76.2	121.8	55.3	10
36190	1/0 (262x24) [53.73 (262x.51)]	.150	3.81	.750	19.05	50 [▲]	15.2	32.4	14.7	10
						500 [◆]	152.4	287.5	130.7	10
36100	2/0 (504x26) [67.85 (504x.41)]	.150	3.81	.815	20.70	50 [▲]	15.2	37.5	17.0	10
36140	4/0 (805x26) [108.37 (805x.41)]	.150	3.81	.959	24.36	50 [▲]	15.2	52.5	23.8	10
						250 [◆]	76.2	247.5	112.5	10

[▲]50 ft. put-ups are one piece, exact.

[◆]250 ft. and 500 ft. put-ups are exact, but may contain 2 pieces max. Minimum length of any one piece is 50 ft.

Hypalon is a DuPont trademark.



For more information, contact **Belden Technical Support: 1-800-BELDEN-1 • www.belden.com**

Neoprene

UL AWM Style 3044 300V, 90°C (CSA Type CL902)

Product Description

Neoprene insulation has good heat aging characteristics and is an excellent low-cost motor lead wire. It may be considered for use in hazardous locations and is being used in explosion-proof motors recognized by UL. 12 AWG and smaller sizes are dual labeled UL and CSA.

Recommended maximum baking cycles:
24 hours @ 300°F (149°C) • 8 hours @ 325°F (163°C)
15 minutes @ 450°F (232°C)



Stranded tinned copper conductor

UL AWM Style 3046, 3048, 3049 600V, 90°C (CSA Type CL903 available as shown)

Product Description

Neoprene insulation has good heat aging characteristics and is an excellent low-cost motor lead wire. It may be considered for use in hazardous locations and is being used in explosion-proof motors recognized by UL. 12 AWG and smaller sizes are dual labeled UL and CSA.

Recommended maximum baking cycles:
24 hours @ 300°F (149°C) • 8 hours @ 325°F (163°C)
15 minutes @ 450°F (232°C)

Stranded Conductor



Stranded tinned copper conductor

Separator Over Conductor



Separator

Part No.	AWG (stranding) [sq. mm] (stranding in mm)	Insulation Thickness		Nominal OD		Standard Lengths		Standard Unit Weight		Stock Colors (See Color Codes Chart on Page 3.29)
		Inch	mm	Inch	mm	Ft.	m	Lbs.	kg	

300V, 90°C (UL & CSA)

UL AWM Style 3044 • CSA Type CL902										
31520	20 (10x30) [.51 (10x.25)]	.030	.76	.100	2.54	500 [†]	152.4	5.0	2.3	10
						5000 ^{††}	1524.0	40.0	18.2	10
31518	18 (16x30) [.81 (16x.25)]	.030	.76	.109	2.77	500 [†]	152.4	6.0	2.7	2, 4, 5, 6, 9, 10
						2000 ^{††}	609.6	22.0	10.0	1-3, 5, 6, 9, 10
						5000 ^{††}	1524.0	55.0	25.0	1-6, 9, 10, B02
31516	16 (26x30) [1.32 (26x.25)]	.030	.76	.122	3.10	500 [†]	152.4	8.0	3.6	2-6, 9, 10
						5000 ^{††}	1524.0	75.0	34.1	2, 4, 5, 9, 10

[†]May contain more than one piece. Minimum length of any one piece is 50 ft.
^{††}May contain more than one piece. Minimum length of any one piece is 200 ft.

600V, 90°C (UL)

UL AWM Style 3046 • CSA Type CL903										
32518	18 (16x30) [.81 (16x.25)]	.045	1.14	.142	3.61	500 [†]	152.4	8.5	3.9	9, 10
						5000 ^{††}	1524.0	80.0	36.4	9, 10
32516	16 (26x30) [1.32 (26x.25)]	.045	1.14	.155	3.94	500 [†]	152.4	11.0	5.0	2-6, 9, 10
						5000 ^{††}	1524.0	105.0	47.7	10
31514	14 (41x30) [2.08 (41x.25)]	.045	1.14	.169	4.29	500 [†]	152.4	13.5	6.1	2, 4, 5, 9, 10
						4000 ^{††}	1219.2	108.0	49.1	2, 4, 5, 9, 10
31512	12 (65x30) [3.29 (65x.25)]	.045	1.14	.190	4.83	250 [†]	76.2	10.0	4.5	10
						3000 ^{††}	914.4	117.0	53.2	10
UL AWM Style 3046**										
31510	10 (65x28) [5.29 (65x.32)]	.045	1.14	.209	5.31	250 [†]	76.2	13.0	5.9	10
						2000 ^{††}	609.6	106.0	48.2	10
UL AWM Style 3048**										
31508*	8 (84x27) [8.60 (84x.36)]	.060	1.52	.285	7.24	500 [†]	152.4	47.5	21.6	2, 10
31506*	6 (84x25) [13.66 (84x.46)]	.060	1.52	.343	8.71	500 [†]	152.4	66.5	30.2	10
31504*	4 (105x24) [21.53 (105x.51)]	.060	1.52	.399	10.14	250 [†]	76.2	52.0	23.6	10
31502*	2 (163x24) [33.43 (163x.51)]	.060	1.52	.454	11.53	250 [†]	76.2	69.3	31.4	10
UL AWM Style 3049**										
31501*	1 (210x24) [43.07 (210x.51)]	.080	2.03	.557	14.15	250 [†]	76.2	98.5	44.8	10
31590*	1/0 (262x24) [53.73 (262x.51)]	.080	2.03	.607	15.42	250 [†]	76.2	116.8	53.1	10
31500*	2/0 (504x26) [67.85 (504x.41)]	.080	2.03	.668	16.97	250 [†]	76.2	141.5	64.3	10

*Separator over conductor.
**CSA requires additional wall thickness in sizes 10 AWG and larger to meet CL903 requirements.
[†]May contain more than one piece. Minimum length of any one piece is 50 ft.
^{††}May contain more than one piece. Minimum length of any one piece is 200 ft.