

Glossary Of Terms

ANSI - American National Standards Institute.

Armor - A sheath, serving, braid or other layer of metal applied over a cable to increase its mechanical protection.

ARR - Association of American Railroads

ASTM - American Society for Testing and Materials.

AWG - American Wire Gauge.

Binder Tape - A helically applied tape used for holding assembled cable components in place until additional manufacturing operations are performed.

Braid - A flexible cable covering, armor, core binder or shield of interwoven yarns, fine wires, fibers or flat metal strips.

Cable - A cable is either an insulated conductor (one conductor cable) or a combination of conductors insulated from one another (multiple conductor cable).

Circular Mil (Cmil) - The area of a circle one thousandth of an inch (or one mil) in diameter.

Coating - A material applied to the surface of a conductor to prevent environmental deterioration, facilitate soldering or improve electrical performance.

Color Code - A color system for circuit identification by use of solid colors, tracers, braids, surface printing, etc.

Conductor - A wire or combination of wires not insulated from one another, suitable for carrying an electrical current

CPE (Chlorinated Polyethylene) A flame retardant thermoplastic jacketing material.

Cross Linking - The establishment of chemical bonds between polymer molecule chains. It may be accomplished by heat, vulcanization, irradiation or the addition of a suitable chemical agent.

CSA - Canadian Standards Association.

CSPE (Chlorosulfonated Polyethylene) A rubbery polymer made by treating polyethylene with chlorine and sulfur

dioxide. Manufactured by E.I. Du Pont under the trade name of Hypalon.

CT USE - UL designation for "Cable Tray Use" indicating that the cable has been evaluated for use in cable trays in accordance with NEC.

Drain Wire - An uninsulated conductor utilized in a shielded cable in direct contact with the metallic shield. It provides shield continuity and aids in terminating.

Elastomer - A polymeric, rubber-like material that at room temperature returns rapidly to approximately its initial dimensions and shape after being substantially deformed by a weak stress and the weak stress is released.

EPR (Ethylene Propylene Rubber) Rubber-like copolymer of ethylene and propylene. It is compounded and vulcanized or crosslinked for specific end uses most commonly as a thermoset insulation material.

Exane[®] A family of proprietary crosslinked polyolefin materials.

Filler - Any material used in multiconductor cables to occupy the interstices between insulated conductors or to form a core into a desired shape (usually circular).

Flame Retardance - The ability of a burning material to extinguish its own flame once its flame-initiating heat source is removed.

FR - Abbreviation for flame retardant, often used as a prefix to further describe materials (i.e. FR-XLPE).

Gardex[®] CC - Rockbestos trade name for continuously welded and corrugated aluminum armor.

Ground Wire - The conductor leading from a current consuming device to a ground connection.

Halogen - Any of the elements Fluorine, Chlorine, Bromine or Iodine that form group VII A of the periodic table. In cable insulation and jackets, Chlorine, Bromine or Fluorine are typically utilized as flame retardants. They have the

undesirable effect of generating corrosive acid gas in the event of fire.

ICEA - Insulated Cable Engineers Association (Formerly IPCEA).

IEEE - Institute of Electrical and Electronics Engineers (Formerly AIEE).

Insulation - Material having a high resistance to the flow of electric current to prevent leakage of current from a conductor.

Irradiation - The exposure of a material to high energy emissions. In insulations and jackets for the purpose of favorably altering the molecular structure (i.e., to crosslink).

Jacket - An extruded plastic or elastomeric material covering applied over an insulation or an assembly of components to provide protection or act as a barrier.

Kcmil - A unit of conductor area in thousands of circular mils (formerly MCM).

KV (Kilovolt) - A term denoting one thousand volts.

LOCA - Extended test procedure in IEEE 323 to establish performance of nuclear cables by subjecting them to thermal, chemical and radiation exposure designed to simulate a nuclear design base event (Loss of Coolant Accident).

MC - UL type designation for metal-clad cables. These cable designs contain continuously welded (smooth or corrugated) or interlocked armor utilizing aluminum or steel (NEC & UL Standard No. 1569).

Method 1 - ICEA circuit identification method which utilizes base colors with tracers in accordance with color sequence tables K-1 or K-2.

Method 3 - ICEA circuit identification method which utilizes single color insulation or covering on all conductors with printed conductor numbers and color designations in accordance with color sequence tables K-1 or K-2 (i.e. 1-Black, 2-Red, 3-Blue, etc. for K-2).

Glossary Of Terms

Method 4 - ICEA circuit identification method which utilizes a single color insulation or covering on all conductors with each conductor numbered in sequence by surface printing, beginning with the number 1.

Mica - A transparent to semi-transparent mineral silicate which can be separated into very thin leaves. It is useful as an electrical insulating material and performs at temperatures up to 900°C. When combined with glass or polyester tape it forms the basis for a functional, high temperature cable insulation system.

Mil - The one thousandth part of an inch (.005" = 5 mils).

Multiconductor - More than one insulated conductor within a single cable.

MV-105 - UL type designation for medium voltage (2001 Volts & higher) cables rated at 105°C conductor temperature (NEC & UL Standard No. 1072).

Neoprene (Polychloroprene)

Synthetic rubber compound used for cable jacket when thermoset materials are required.

Nominal - Name or identifying value of a measurable property by which cable components or performance is identified and to which tolerances may be applied.

Pair - A group of two insulated conductors which are twisted together.

PTFE (Polytetrafluoroethylene)

A high temperature fluoropolymer used as cable insulation. Because it is not melt processable, it is applied as a paste extrusion and then sintered or used in tape form.

PVC (Polyvinyl Chloride) - A thermoplastic material composed of polymers of vinyl chloride which is used as insulation or jackets.

RHH - UL type designation for one conductor cables covered with heat resistant or crosslinked synthetic polymer (NEC and UL Standard No. 44).

RHW - UL type designation for one conductor cables covered with moisture and heat resistant or crosslinked synthetic polymer (NEC & UL Standard No. 44).

Rockhide® - Rockbestos trade name for a proprietary blend of aramid and other high temperature synthetic fibers typically used as braid and filler material.

Rocktherm® - Rockbestos trade name for a proprietary blend of high performance silicone rubber insulation.

Semiconducting - A material of such resistance that when applied between two elements of a cable (typically the conductor and insulation) the adjacent surfaces of the two elements will maintain substantially the same potential.

Shield - Any barrier to the passage of interference causing electrostatic or electromagnetic fields, formed by a conductive layer surrounding a cable core. It is usually fabricated from a metallic tape, braid, foil or wire serve.

Silicone Rubber - Rubber made from silicone polymers and characterized by its retention of flexibility, resilience and tensile strength over a wide temperature range and by the formation of non-conducting ash during combustion.

Solid Wire - A conductor consisting of a single member or strand as distinguished from a stranded conductor.

Stranded Conductor - A conductor composed of a group of wires or combination of groups of wires.

TC - UL type designation for low voltage power and control tray cable (NEC Article 340 & UL Standard No. 1277).

Temperature Rating - The maximum temperature at which a given insulation or jacket may be safely maintained during continuous use without incurring any significant thermally-induced deterioration.

Thermoplastic - A classification of material that can be readily softened and reformed by heating and be rehardened by cooling.

Thermoset - A classification of material which cures (crosslinks) by chemical reaction and then is resistant to the heat related softening effect exhibited by thermoplastic materials.

Triad - A group of three insulated conductors which are twisted together.

UL - Underwriters Laboratories, Inc.

USE - UL type designation for underground service entrance cable (NEC & UL Standard No. 854).

Volt - The practical unit of electromotive force. One volt is required to send one ampere of current through a circuit whose resistance is one ohm.

Voltage Rating - The maximum voltage at which a given cable or insulated conductor may be safely maintained during continuous use in a normal manner.

Vulcanization - An irreversible process during which a rubber or polymeric compound through a change in its chemical structure (i.e. crosslinking), becomes thermoset (usually improving chemical resistance and conferring, improving or extending elastic properties over a greater range of temperature).

XHHW - UL type designation for one conductor cables covered with moisture and heat resistant crosslinked synthetic polymer (NEC & UL Standard No. 44).

XLPE (Crosslinked Polyethylene)
A tough thermoset insulation material made by crosslinking polyethylene polymers by either heat or irradiation processing. (It is classified under the more generic category of crosslinked polyolefins - see below).

XLPO (Crosslinked Polyolefin)
A thermoset material used for insulation or jackets. A polyolefin is a class of hydrocarbon polymers characterized by at least one double bond in the carbon chain. The polyolefins include mainly the polymers and copolymers of ethylene (polyethylene) and propylene (polypropylene). They are made thermosetting (or crosslinked) by chemical means (heating with organic peroxides) or by irradiation (high energy electron beam).

Copper Conductor

ASTM Class B							
Size AWG/kcmil	Stranding #/Strand Diameter (Inch)	NOMINAL AREA		NOMINAL DIAMETER		NOMINAL WEIGHT	
		kcmil	mm ²	Inches	mm	lbs/kft	kg/km
22	7/.0100	0.64	0.32	0.030	0.76	2.2	3.3
20	7/.0121	1.02	0.52	0.036	0.91	3.2	4.8
18	7/.0152	1.62	0.82	0.045	1.14	5.0	7.4
16	7/.0192	2.58	1.31	0.056	1.42	8.0	12
14	7/.0242	4.11	2.08	0.071	1.80	12.7	18.9
12	7/.0305	6.53	3.31	0.090	2.29	20.2	30.1
10	7/.0385	10.38	5.26	0.113	2.87	32.1	47.8
9	7/.0432	13.09	6.63	0.127	3.23	40.4	60.1
8	7/.0486	16.51	8.37	0.143	3.63	51.0	74.4
7	7/.0545	20.82	10.5	0.160	4.06	64.3	95.7
6	7/.0612	26.24	13.3	0.180	4.57	81.1	121
5	7/.0688	33.09	16.8	0.202	5.13	102	152
4	7/.0772	41.74	21.2	0.227	5.77	129	192
3	7/.0867	52.62	26.7	0.255	6.48	163	243
2	7/.0974	66.36	33.6	0.286	7.26	205	305
1	19/.0664	83.69	42.4	0.324	8.23	258	384
1/0	19/.0745	105.6	53.5	0.363	9.22	326	485
2/0	19/.0837	133.1	67.4	0.408	10.4	411	612
3/0	19/.0940	167.8	85.0	0.458	11.6	518	771
4/0	19/.1055	211.6	107	0.514	13.1	653	972
250	37/.0822	250	127	0.561	14.2	772	1150
262.6	-	-	-	-	-	-	-
300	37/.0900	300	152	0.614	15.6	926	1380
313.1	-	-	-	-	-	-	-
350	37/.0973	350	177	0.664	16.9	1080	1607
373.7	-	-	-	-	-	-	-
400	37/.1040	400	203	0.710	18.0	1235	1838
444.4	-	-	-	-	-	-	-
500	37/.1162	500	253	0.793	20.1	1544	2297
535.3	-	-	-	-	-	-	-
592	-	-	-	-	-	-	-
600	61/.0992	600	304	0.871	22.1	1853	2757
646.4	-	-	-	-	-	-	-
750	61/.1109	750	380	0.973	24.7	2316	3446
777.7	-	-	-	-	-	-	-
1000	61/.1280	1000	507	1.123	28.5	3088	4595
1111	-	-	-	-	-	-	-

Copper Conductor

ASTM Class C							
Size AWG/kcmil	Stranding #/Strand Diameter (Inch)	NOMINAL AREA		NOMINAL DIAMETER		NOMINAL WEIGHT	
		kcmil	mm ²	Inches	mm	lbs/kft	kg/km
22	19/.0063	0.64	0.32	0.031	0.79	2.3	3.4
20	19/.0080	1.02	0.52	0.038	0.97	3.8	5.7
18	19/.0092	1.62	0.82	0.044	1.12	5.0	7.4
16	19/.0117	2.58	1.31	0.056	1.42	8.0	12
14	19/.0147	4.11	2.08	0.071	1.80	12.7	18.9
12	19/.0185	6.53	3.31	0.089	2.26	20.2	30.1
10	19/.0234	10.38	5.26	0.112	2.85	32.1	47.8
9	19/.0262	13.09	6.63	0.123	3.12	40.4	60.1
8	19/.0295	16.51	8.37	0.139	3.53	51.0	74.4
7	19/.0331	20.82	10.5	0.156	3.96	64.3	95.7
6	19/.0372	26.24	13.3	0.175	4.45	81.0	121
5	19/.0417	33.09	16.8	0.203	5.16	102	152
4	19/.0469	41.74	21.2	0.229	5.82	129	192
3	19/.0526	52.62	26.7	0.256	6.50	163	243
2	19/.0591	66.36	33.6	0.288	7.32	205	305
1	37/.0476	83.69	42.4	0.325	8.26	258	384
1/0	37/.0534	105.6	53.5	0.364	9.25	326	485
2/0	37/.0600	133.1	67.4	0.410	10.4	411	612
3/0	37/.0673	167.8	85.0	0.459	11.7	518	771
4/0	37/.0756	211.6	107	0.516	13.1	653	972
250	61/.0640	250	127	0.562	14.3	774	1150
262.6	-	-	-	-	-	-	-
300	61/.0701	300	152	0.615	15.6	927	1380
313.1	-	-	-	-	-	-	-
350	61/.0757	350	177	0.664	16.9	1082	1610
373.7	-	-	-	-	-	-	-
400	61/.0810	400	203	0.711	18.1	1235	1838
444.4	-	-	-	-	-	-	-
500	61/.0905	500	253	0.794	20.2	1545	2299
535.3	-	-	-	-	-	-	-
592	-	-	-	-	-	-	-
600	91/.0812	600	304	0.893	22.7	1853	2757
646.4	-	-	-	-	-	-	-
750	91/.0908	750	380	0.999	25.4	2316	3446
777.7	-	-	-	-	-	-	-
1000	91/.1048	1000	507	1.153	29.3	3088	4595
1111	-	-	-	-	-	-	-

Copper Conductor

ASTM Class H							
Size AWG/kcmil	Stranding #/Strand Diameter (Inch)	NOMINAL AREA		NOMINAL DIAMETER		NOMINAL WEIGHT	
		kcmil	mm ²	Inches	mm	lbs/kft	kg/km
22	-	-	-	-	-	-	-
20	-	-	-	-	-	-	-
18	-	-	-	-	-	-	-
16	-	-	-	-	-	-	-
14	-	-	-	-	-	-	-
12	-	-	-	-	-	-	-
10	-	-	-	-	-	-	-
9	-	-	-	-	-	-	-
8	133/.0111	16.51	8.37	0.164	4.17	52	77
7	133/.0126	20.82	10.5	0.190	4.83	67	100
6	133/.0140	26.24	13.3	0.204	5.18	82	122
5	133/.0158	33.09	16.8	0.231	5.87	105	156
4	133/.0177	41.74	21.2	0.260	6.60	132	196
3	133/.0199	52.62	26.7	0.292	7.42	167	248
2	133/.0223	66.36	33.6	0.327	8.31	208	310
1	259/.0180	83.69	42.4	0.363	9.22	266	396
1/0	259/.0202	105.6	53.5	0.407	10.3	334	497
2/0	259/.0227	133.1	67.4	0.458	11.6	422	628
3/0	259/.0255	167.8	85.0	0.515	13.1	533	793
4/0	259/.0286	211.6	107	0.579	14.7	670	997
250	427/.0242	250	127	0.627	15.9	795	1183
262.6	-	-	-	-	-	-	-
300	427/.0265	300	152	0.702	17.8	953	1418
313.1	-	-	-	-	-	-	-
350	427/.0286	350	177	0.740	18.8	1110	1652
373.7	-	-	-	-	-	-	-
400	427/.0306	400	203	0.809	20.5	1270	1890
444.4	-	-	-	-	-	-	-
500	427/.0342	500	253	0.900	22.9	1590	2366
535.3	-	-	-	-	-	-	-
592	-	-	-	-	-	-	-
600	703/.0292	600	304	1.022	26.0	1920	2857
646.4	-	-	-	-	-	-	-
750	703/.0327	750	380	1.122	28.5	2410	3586
777.7	-	-	-	-	-	-	-
1000	703/.0377	1000	507	1.294	32.9	3205	4769
1111	-	-	-	-	-	-	-

Copper Conductor

Class I Type							
Size AWG/kcmil	Stranding #/AWG	NOMINAL AREA		NOMINAL DIAMETER		NOMINAL WEIGHT	
		kcmil	mm ²	Inches	mm	lbs/kft	kg/km
22	-	-	-	-	-	-	-
20	-	-	-	-	-	-	-
18	-	-	-	-	-	-	-
16	-	-	-	-	-	-	-
14	-	-	-	-	-	-	-
12	-	-	-	-	-	-	-
10	27/24	10.91	5.53	0.123	3.12	33.7	50
9	-	-	-	-	-	-	-
8	37/24	14.95	7.57	0.138	3.50	46.0	68
7	-	-	-	-	-	-	-
6	61/24	24.64	12.5	0.190	4.83	77	114
5	91/24	36.76	19	0.240	6.10	113	168
4	105/24	42.42	21	0.260	6.60	132	196
3	125/24	50.5	25	0.285	7.24	155	231
2	150/24	60.6	31	0.320	8.13	189	281
1	225/24	90.9	46	0.385	9.78	280	417
1/0	275/24	111.1	56	0.435	11.0	346	515
2/0	325/24	131.3	66	0.470	11.9	403	600
3/0	450/24	181.8	92	0.545	13.8	567	844
4/0	550/24	222.2	112	0.580	14.7	684	1018
250	-	-	-	-	-	-	-
262.6	650/24	262.6	133	0.652	16	820	1220
300	-	-	-	-	-	-	-
313.1	775/24	313.1	159	0.700	18	960	1428
350	-	-	-	-	-	-	-
373.7	925/24	373.7	189	0.760	19	1105	1644
400	-	-	-	-	-	-	-
444.4	1100/24	444.4	225	0.850	21	1370	2038
500	-	-	-	-	-	-	-
535.3	1325/24	535.3	271	0.940	24	1700	2530
592	1480/24	597.9	303	0.970	25	1835	2730
600	-	-	-	-	-	-	-
646.4	1600/24	646.4	327	1.040	26	1992	2964
750	-	-	-	-	-	-	-
777.7	1925/24	777.7	394	1.120	28	2390	3556
1000	-	-	-	-	-	-	-
1111	2750/24	1111	563	1.340	34	3400	5059

Copper Conductor

ASTM Class K							
Size AWG/kcmil	Stranding #/Strand Diameter (Inch)	NOMINAL AREA		NOMINAL DIAMETER		NOMINAL WEIGHT	
		kcmil	mm ²	Inches	mm	lbs/kft	kg/km
22	-	-	-	-	-	-	-
20	10/.010	1.02	0.52	0.036	0.91	3.2	4.8
18	16/.010	1.62	0.82	0.046	1.2	5.0	7.4
16	26/.010	2.58	1.31	0.057	1.4	7.8	12
14	41/.010	4.11	2.08	0.071	1.8	12.8	19.0
12	65/.010	6.53	3.31	0.088	2.2	20.3	30.2
10	105/.010	10.38	5.26	0.112	2.8	33.3	49.6
9	133/.010	13.09	6.63	0.150	3.8	42.4	63.1
8	168/.010	16.51	8.37	0.158	4.0	54.3	80.8
7	210/.010	20.82	10.5	0.175	4.4	66.8	99.4
6	266/.010	26.24	13.3	0.198	5.0	84.2	125
5	336/.010	33.09	16.8	0.261	6.6	106	158
4	420/.010	41.74	21.2	0.249	6.3	132	196
3	532/.010	52.62	26.7	0.298	7.6	169	251
2	665/.010	66.36	33.6	0.317	8.1	211	314
1	836/.010	83.69	42.4	0.356	9.0	266	396
1/0	1064/.010	105.6	53.5	0.401	10	338	503
2/0	1323/.010	133.1	67.4	0.501	13	425	632
3/0	1666/.010	167.8	85.0	0.562	14	535	796
4/0	2107/.010	211.6	107	0.632	16	676	1006
250	2499/.010	250	127	0.688	17	802	1193
262.6	2220/.010	222	112	0.680	17	850	1265
300	2989/.010	300	152	0.753	19	960	1428
313.1	3136/.010	313.6	159	0.750	19	969	1442
350	3458/.010	350	177	0.818	21	1120	1667
373.7	3737/.010	373.7	189	0.790	20	1210	1800
400	3990/.010	400	203	0.878	22	1290	1920
444.4	-	-	-	-	-	-	-
500	5054/.010	500	253	0.990	25	1635	2433
535.3	5320/.010	532	270	0.950	24	1641	2442
592	-	-	-	-	-	-	-
600	5985/.010	600	304	1.125	29	1950	2902
646.4	6466/.010	646.6	328	1.040	26	1987	2957
750	7448/.010	750	380	1.276	32	2427	3611
777.7	-	-	-	-	-	-	-
1000	9975/.010	1000	507	1.498	38	3250	4769
1111	-	-	-	-	-	-	-

Metric Conversion Data & Temperature Conversion Chart

METRIC CONVERSION FACTORS			
TO CHANGE	MULTIPLY BY	TO CHANGE	MULTIPLY BY
meters to inches	39.37	inches to meters	0.0254
meters to feet	3.28	feet to meters	0.3048
meters to centimeters	100.00	centimeters to meters	0.01
meters to millimeters	1000.00	millimeters to meters	0.001
kilometers to meters	1000.00	meters to kilometers	0.001
inches to millimeters	25.40	millimeters to inches	0.03937
feet to millimeters	304.80	millimeters to feet	0.00328
yards to millimeters	914.40	millimeters to yards	0.00109
miles to kilometers	1.61	kilometers to miles	0.6214
pounds to grams	453.6	grams to pounds	2.205 x 10 ³
mm ² to CMA	1973.5	pounds/kft to kg/km	1.488
		pounds force-force to newtons	4.448
		pounds/in ² to pascals	6895

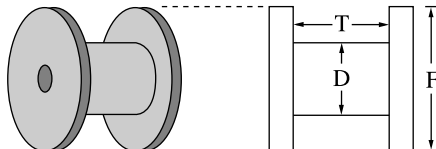
TEMPERATURE CONVERSION FACTORS					
Degrees Centigrade = 5/9 (° F – 32)		Degrees Fahrenheit = 9/5 (°C) + 32			
°C	°F	°C	°F	°C	°F
-80	-112.	26	78.8	81	177.8
-70	-94.	27	80.6	82	179.6
-60	-76.	28	82.4	83	181.4
-50	-58.	29	84.2	84	183.2
-45	-49.	30	86.0	85	185.0
-40	-40.0	31	87.8	86	186.8
-35	-31.0	32	89.6	87	188.6
-30	-22.0	33	91.4	88	190.4
-25	-13.0	34	93.2	89	192.2
-20	-4.0	35	95.0	90	194.0
-19	-2.2	36	96.8	91	195.8
-18	-.4	37	98.6	92	197.6
-17	1.4	38	100.4	93	199.4
-16	3.2	39	102.2	94	201.2
-15	5.0	40	104.0	95	203.0
-14	6.8	41	105.8	96	204.8
-13	8.6	42	107.6	97	206.6
-12	10.4	43	109.4	98	208.4
-11	12.2	44	111.2	99	210.2
-10	14.0	45	113.0	100	212.0
-9	15.8	46	114.8	105	221.
-8	17.6	47	116.6	110	230.
-7	19.4	48	118.4	115	239.
-6	21.2	49	120.2	120	248.
-5	23.0	50	122.0	130	266.
-4	24.8	51	123.8	140	284.
-3	26.6	52	125.6	150	302.
-2	28.4	53	127.4	160	320.
-1	30.2	54	129.2	170	338.
0	32.0	55	131.0	180	356.
1	33.8	56	132.8	190	374.
2	35.6	57	134.6	200	392.
3	37.4	58	136.4	250	482.
4	39.2	59	138.2	300	572.
5	41.0	60	140.0	350	662.
6	42.8	61	141.8	400	752.
7	44.6	62	143.6	500	932.
8	46.4	63	145.4	600	1112.
9	48.2	64	147.2	700	1292.
10	50.0	65	149.0	800	1472.
11	51.8	66	150.8	900	1652.
12	53.6	67	152.6	1000	1832.
13	55.4	68	154.4	1100	2012.
14	57.2	69	156.2	1200	2192.
15	59.0	70	158.0	1300	2372.
16	60.8	71	159.8	1400	2552.
17	62.6	72	161.6	1500	2732.
18	64.4	73	163.4	1600	2912.
19	66.2	74	165.2	1700	3092.
20	68.0	75	167.0	1800	3272.
21	69.8	76	168.8	1900	3452.
22	71.6	77	170.6	2000	3632.
23	73.4	78	172.4	2500	4532.
24	75.2	79	174.2	3000	5432.
25	77.0	80	176.0	4000	7232.

Capacities Of Standard Rockbestos-Surprenant Shipping Reels

Flange (Inches)	14	14	17	19	21	24	24	27	30	34	40
Traverse (Inches)	6	12	12	12	12	12	18	18	24	24	24
Drum (Inches)	6	6	8	8	10	10	12	12	14	14	16
Tare Wt: (Lbs)	3	4	5	8	10	15	25	35	50	70	95
Max. Net: (Lbs)	100	100	150	225	250	300	400	900	900	1,500	3,000
Cable Diameter	Reel Capacity In Feet										
0.150	1,983	4,018	5,470	7,756	8,997	-	-	-	-	-	-
0.200	1,124	2,286	3,020	4,248	4,927	7,414	8,458	-	-	-	-
0.250	724	1,480	1,981	2,769	3,211	4,725	5,521	8,030	-	-	-
0.300	460	944	1,292	1,787	2,073	3,267	3,568	5,561	8,904	-	-
0.400	271	562	698	1,044	1,211	1,822	2,091	3,110	5,066	7,298	-
0.500	160	334	485	677	786	1,156	1,361	1,979	3,279	4,706	6,847
0.600	-	-	286	435	505	796	877	1,367	2,093	3,216	4,600
0.700	-	-	243	317	368	541	641	932	1,608	2,353	3,464
0.800	-	-	-	-	266	411	464	709	1,245	1,708	2,616
0.900	-	-	-	-	234	310	410	537	964	1,361	1,959
1.000	-	-	-	-	167	276	294	481	741	1,084	1,596
1.100	-	-	-	-	-	-	265	362	559	858	1,300
1.200	-	-	-	-	-	-	-	-	510	783	1,055
1.300	-	-	-	-	-	-	-	-	469	617	969
1.400	-	-	-	-	-	-	-	-	-	-	784
1.500	-	-	-	-	-	-	-	-	-	-	728

Flange (Inches)	40	40	48	50	60	66	72	78	84	84	84
Traverse (Inches)	24	24	24	32	32	32	36	36	36	48	54
Drum (Inches)	16	24	24	24	32	32	40	40	48	48	48
Tare Wt: (Lbs)	95	90	133	193	280	380	490	545	670	685	852
Max. Net: (Lbs)	3,000	3,000	3,000	6,000	6,000	9,000	9,000	9,000	10,000	10,000	12,000
Cable Diameter	Reel Capacity In Feet										
0.700	3,464	2,392	4,510	6,649	8,856	-	-	-	-	-	-
0.800	2,616	1,852	3,405	5,074	6,815	9,215	-	-	-	-	-
0.900	1,959	1,435	2,550	3,854	5,233	7,305	8,903	-	-	-	-
1.000	1,596	1,102	2,077	3,169	4,334	5,782	6,991	8,957	9,456	-	-
1.100	1,300	831	1,692	2,611	3,600	4,891	5,885	7,164	8,036	-	-
1.200	1,055	759	1,373	2,147	2,990	3,830	4,965	6,112	6,366	8,561	9,659
1.300	969	697	1,262	1,756	2,476	3,230	4,189	5,224	5,409	7,279	8,214
1.400	784	516	1,021	1,625	2,037	2,990	3,526	4,464	4,591	6,183	6,979
1.500	728	479	948	1,323	1,895	2,529	2,953	3,809	4,272	5,758	6,501
1.600	-	447	759	1,236	1,549	2,126	2,761	3,236	3,631	4,897	5,530
1.700	-	314	711	994	1,454	1,995	2,303	3,037	3,066	4,139	4,675
1.800	-	295	557	936	1,173	1,669	2,169	2,574	2,888	3,901	4,407
1.900	-	279	525	883	1,107	1,576	1,793	2,432	2,424	3,278	3,704
2.000	-	264	497	697	1,049	1,306	1,698	2,047	2,297	3,107	3,512
2.100	-	250	471	662	829	1,239	1,382	1,944	1,908	2,584	2,921
2.200	-	158	358	629	789	1,179	1,315	1,619	1,816	2,461	2,783
2.300	-	151	341	600	752	963	1,254	1,544	1,732	2,349	2,657
2.400	-	144	325	458	718	920	1,199	1,475	1,418	1,925	2,178
2.500	-	-	-	-	687	880	956	1,412	1,358	1,844	2,087
2.600	-	-	-	-	527	703	916	1,160	1,302	1,769	2,003
2.700	-	-	-	-	506	675	880	1,114	1,250	1,700	1,925
2.800	-	-	-	-	486	648	846	1,071	1,001	1,363	1,544
2.900	-	-	-	-	468	624	814	1,031	964	1,313	1,488
3.000	-	-	-	-	450	601	628	828	929	1,266	1,435
3.100	-	-	-	-	434	580	606	799	896	1,223	1,386
3.200	-	-	-	-	-	-	585	771	865	1,182	1,340
3.300	-	-	-	-	-	-	566	746	837	1,144	1,297
3.400	-	-	-	-	-	-	547	722	648	886	1,005
3.500	-	-	-	-	-	-	530	699	627	859	975

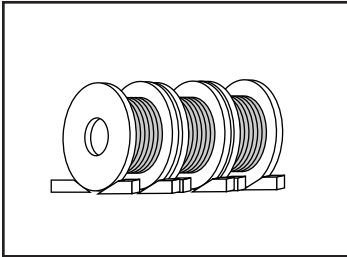
Do not use capacities in shaded areas of tables for armored or copper tape shielded cables.



F = Flange Diameter
 T = Inside Traverse Width
 D = Drum Diameter

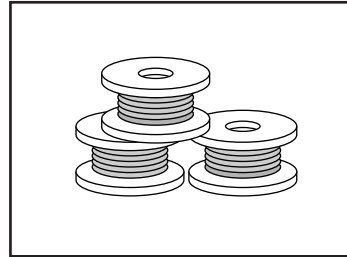
How To Handle Cable Reels

YES

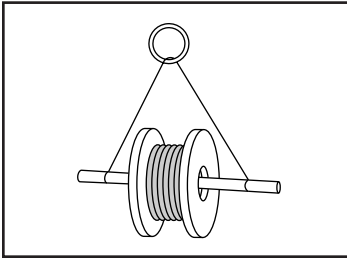


Always load and store reels upright on their flanges and block securely.

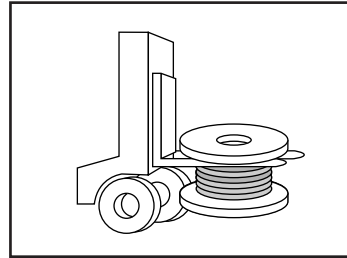
NO



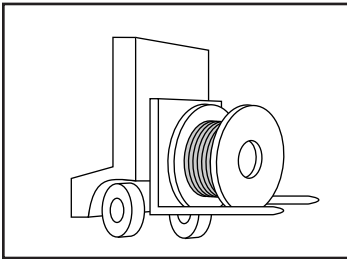
Upended heavy reels will often be damaged.



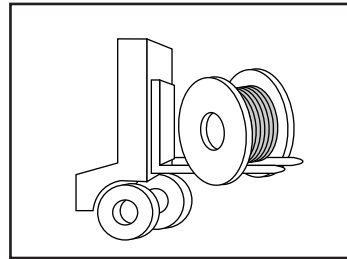
Reels can be hoisted with a properly secured shaft extending through both flanges.



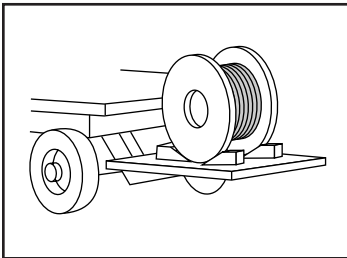
Do not lift by a single reel flange. Cable or reel may be damaged.



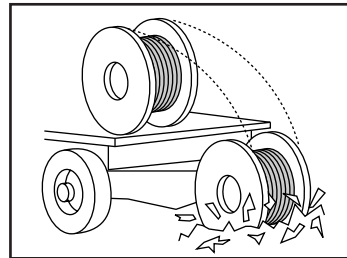
Cradle both reel flanges between fork tines.



Never allow fork tines to touch the cable surface or reel wrap.



Lower reels from a truck using a hydraulic gate, hoist or fork lift. LOWER CAREFULLY.



Never drop reels.

Common Color Sequences

Sequence Designation	Conductor Number	Background or Base Color	Tracer Color	Conductor Number	Background or Base Color	Tracer Color
E-1	1	Black	–	12	Black	White
	2	White	–	13	Red	White
	3	Red	–	14	Green	White
	4	Green	–	15	Blue	White
	5	Orange	–	16	Black	Red
	6	Blue	–	17	White	Red
	7	White	Black	18	Orange	Red
	8	Red	Black	19	Blue	Red
	9	Green	Black	20	Red	Green
	10	Orange	Black	21	Orange	Green
	11	Blue	Black			

Sequence Designation	Conductor Number	Background or Base Color	Tracer Color	Conductor Number	Background or Base Color	Tracer Color
E-2	1	Black	–	19	Orange	Blue
	2	Red	–	20	Yellow	Blue
	3	Blue	–	21	Brown	Blue
	4	Orange	–	22	Black	Orange
	5	Yellow	–	23	Red	Orange
	6	Brown	–	24	Blue	Orange
	7	Red	Black	25	Yellow	Orange
	8	Blue	Black	26	Brown	Orange
	9	Orange	Black	27	Black	Yellow
	10	Yellow	Black	28	Red	Yellow
	11	Brown	Black	29	Blue	Yellow
	12	Black	Red	30	Orange	Yellow
	13	Blue	Red	31	Brown	Yellow
	14	Orange	Red	32	Black	Brown
	15	Yellow	Red	33	Red	Brown
	16	Brown	Red	34	Blue	Brown
	17	Black	Blue	35	Orange	Brown
	18	Red	Blue	36	Yellow	Brown

Color Code IEEE 45-1998 Table 8-31

Conductor Number	Base Color	Tracer Color	Tracer Color	Conductor Number	Base Color	Tracer Color	Tracer Color	Conductor Number	Base Color	Tracer Color	Tracer Color
1	Black			43	Blue	Red	Green	85	White	Green	
2	White			44	Black	White	Blue	86	Blue	Green	
3	Red			45	White	Black	Blue	87	Black	Orange	
4	Green			46	Red	White	Blue	88	White	Orange	
5	Orange			47	Green	Orange	Red	89	Red	Orange	
6	Blue			48	Orange	Red	Blue	90	Green	Orange	
7	White	Black		49	Blue	Red	Orange	91	Blue	Orange	
8	Red	Black		50	Black	Orange	Red	92	Black	Blue	
9	Green	Black		51	White	Black	Orange	93	White	Blue	
10	Orange	Black		52	Red	Orange	Black	94	Red	Blue	
11	Blue	Black		53	Green	Red	Blue	95	Green	Blue	
12	Black	White		54	Orange	Black	Blue	96	Orange	Blue	
13	Red	White		55	Blue	Black	Orange	97	Yellow		
14	Green	White		56	Black	Orange	Green	98	Yellow	Black	
15	Blue	White		57	White	Orange	Green	99	Yellow	White	
16	Black	Red		58	Red	Orange	Green	100	Yellow	Red	
17	White	Red		59	Green	Black	Blue	101	Yellow	Green	
18	Orange	Red		60	Orange	Green	Blue	102	Yellow	Orange	
19	Blue	Red		61	Blue	Green	Orange	103	Yellow	Blue	
20	Red	Green		62	Black	Red	Blue	104	Black	Yellow	
21	Orange	Green		63	White	Orange	Blue	105	White	Yellow	
22	Black	White	Red	64	Red	Black	Blue	106	Red	Yellow	
23	White	Black	Red	65	Green	Orange	Blue	107	Green	Yellow	
24	Red	Black	White	66	Orange	White	Red	108	Orange	Yellow	
25	Green	Black	White	67	Blue	White	Red	109	Blue	Yellow	
26	Orange	Black	White	68	Black	Green	Blue	110	Black	Yellow	Red
27	Blue	Black	White	69	White	Green	Blue	111	White	Yellow	Red
28	Black	Red	Green	70	Red	Green	Blue	112	Green	Yellow	Red
29	White	Red	Green	71	Green	White	Red	113	Orange	Yellow	Red
30	Red	Black	Green	72	Orange	Red	Black	114	Blue	Yellow	Red
31	Green	Black	Orange	73	Blue	Red	Black	115	Black	Yellow	White
32	Orange	Black	Green	74	Black	Orange	Blue	116	Red	Yellow	White
33	Blue	White	Orange	75	Red	Orange	Blue	117	Green	Yellow	White
34	Black	White	Orange	76	Green	Red	Black	118	Orange	Yellow	White
35	White	Red	Orange	77	Orange	White	Green	119	Blue	Yellow	White
36	Orange	White	Blue	78	Blue	White	Green	120	Black	Yellow	Green
37	White	Red	Blue	79	Red	White	Orange	121	White	Yellow	Green
38	Black	White	Green	80	Green	White	Orange	122	Red	yellow	Green
39	White	Black	Green	81	Blue	Black	Green	123	Orange	Yellow	Green
40	Red	White	Green	82	Orange	White		124	Blue	Yellow	Green
41	Green	White	Blue	83	Green	Red		125	Black	Yellow	Blue
42	Orange	Red	Green	84	Black	Green		126	White	Yellow	Blue
								127	Red	Yellow	Blue