Wire and Cable Abbreviations

E	Thermoplastic Elastomer (TPE)
J	Junior (300 V)
O	Oil-Resistant
P	Parallel
S	Service (600 V)
T	Thermoplastic/Vinyl
W	Weather Approved (water-, moisture-, damp-, sunlight-resistant)

EPDM	Ethylene-propylene-diene monomer rubber.
HPN	Two-conductor, neoprene-insulated heater cord. Parallel construction. For use in high temperature locations.
S	Extra-hard-usage, rubber-insulated portable cord. Stranded copper conductors with separator and individual rubber insulation. Two or more color-coded conductors cabled with filler, wrapped with separator and rubber jacketed overall. 600 V.
SJ	Hard-usage, rubber-insulated pendant or portable cord. Same construction as Type S, but 300 V. Jacket thickness different.
SJEOW	Hard-usage thermoplastic or rubber-insulated conductors and oil-resistant thermoplastic outer jacket. All-elastomer construction. 300 V, 90°C to 105°C. Weather-resistant. Meets UL specifications.
SJEW	Hard-usage thermoplastic or rubber-insulated conductors and overall thermoplastic jacket. All elastomer construction. 300 V, 90°C to 105°C. Weather-resistant. Meets UL specifications.
SJO	Same as SJ, but Carolprene®, oil-resistant compound outer jacket. Can also be made water-resistant. 300 V, 60°C.
SJOO	Same as SJO but inner conductor insulation as well as the outer jacket is oil-resistant.
SJOOW	Same as SJOO but also water- and weather-resistant.
SJT	Hard-usage thermoplastic or rubber-insulated conductors with overall thermoplastic jacket. 300 V, 60°C to 105°C.
SJTO	Same as SJT, but oil-resistant thermoplastic outer jacket. 60°C.
SJTW	Extra-hard-usage thermoplastic conductors and overall thermoplastic jacket. 300 V, 60°C to 105°C. Weather-resistant for outdoor use.
SO	Extra-hard-usage cord, same construction as Type S, except oil-resistant Carolprene® jacket. 600 V, 60°C to 90°C.
SOO	Same as SO, but inner conductor insulation as well as the outer jacket is oil-resistant.
SOOW	Same as SOO, but also weather-, water- and sunlight-(UV) resistant.
SP-1	All-rubber, parallel-jacketed, two-conductor light-duty cord for pendant or portable use in damp locations. 300 V.
SP-2	Same as SP-1, but heavier construction, with or without third conductor for grounding purposes. 300 V.
SPT-1	Same as SP-1, except all-thermoplastic. 300 V. With or without third conductor for grounding.
SPT-2	Same as SP-2, except all-thermoplastic. 300 V. With or without third conductor for grounding.
SPT-3	Same as SP-3, except all-thermoplastic. 300 V. With or without third conductor for grounding.
SRD	Portable range or dryer cable. Three or four rubber-insulated conductors with rubber or neoprene jacket, flat or round construction. 300 V, 60°C rated.
SRDT	Same as SRD, except all-thermoplastic with a maximum temperature of 90°C.
ST	Extra-hard-usage cord, jacketed, same as Type S except all-plastic construction. 600 V, 60°C to 105°C.
STO	Same as ST, but with oil-resistant thermoplastic outer jacket. 600 V, 60°C.
STW	Extra-hard-usage cord, jacketed. 600 V, 60°C to 105°C. Weather- and water-resistant for outdoor use.
SV	Vacuum cleaner cord, two- or three-conductor, rubber insulated. Overall rubber jacket. For light-duty in damp locations. 300 V, 60°C.
SVO	Same as SV, except oil-resistant Carolprene® jacket. 300 V, 60°C.
SVT	Same as SV, except all-plastic construction. With or without third conductor for grounding purposes only. 300 V, 60°C to 90°C.
XLPE	Crosslinked polyethylene.

Super Vu-Tron® Type SO

90°C, 600 Volt

NOW WITH TRU-Mark® Footage Marking System PRECISION

Product Construction:

Conductors:

- 18 through 10 AWG stranded bare copper

Insulation:

- Premium-grade 90°C EPDM

Jacket:

- Super Vu-Tron®, black
- Temperature range: -40°C to +90°C

Jacket Marking:

- (SIZE) TYPE SO 600 VOLT CAROL SUPER VU-TRON® 90°C P-123-MSHA(1) (TRU-MARK SEQUENTIAL FOOTAGE)

Applications:

- Portable tools and equipment
- Portable appliances
- Small motors and associated machinery
- Flexible power leads

Features:

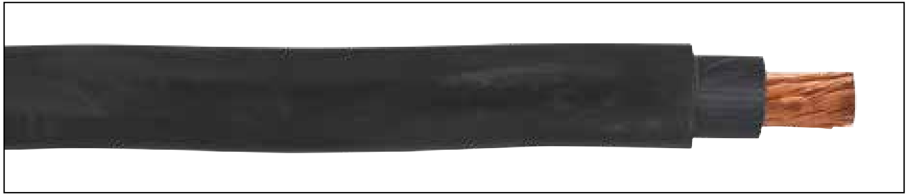
- Excellent resistance to oil and moisture
- Good tensile strength, elongation and aging characteristics
- High flexibility
- Excellent abrasion resistance
- Ozone-, sunlight (UV)- and weather-resistant
- TRU-Mark® sequential footage marking

Industry Approvals:

- MSHA Approved(1)
- RoHS Compliant

Packaging:

- Lengths cut to order



TYPE SO, NON-UL – 600 VOLT

CATALOG NUMBER	AWG SIZE	COND. STRAND	NOMINAL INS. THICKNESS		NOMINAL O.D.		CURRENT AMPS†	APPROX. NET WT. LBS/M'(S)
			INCHES	mm	INCHES	mm		
77493*	18	16/30	0.030	0.76	0.180	4.57	10	19
77483*	16	26/30	0.030	0.76	0.200	5.08	13	25
77473*	14	41/30	0.045	1.14	0.240	6.09	18	40
77463*	12	65/30	0.045	1.14	0.265	6.60	25	50
77453*(1)	10	104/30	0.045	1.14	0.305	7.75	30	75

† Ampacities based on NEC Table 400.5(A)(1).
* Non-stock item; minimum quantity purchase required.
(S)Actual shipping weight may vary.
(1) Only 10 AWG construction is MSHA Approved.

Super Vu-Tron® Single Conductor Type W Extra Flex

90°C, 2000 Volt, UL Listed

NOW WITH TRU-Mark® Footage Marking System PRECISION

Product Construction:

Conductor:
- 8 AWG through 250 kcmil fully annealed stranded bare copper per ASTM B172

Insulation:
- Premium-grade 90°C EPDM

Jacket:
- Super Vu-Tron® 90°C, black (standard)
  Other Available Colors:
  - Gray, red, orange, yellow, green, blue
  - See color code chart
- Temperature range: -40°C to +90°C
- An open polyester braid reinforcement is applied between the insulation and jacket for mechanical strength

Jacket Marking:
- CAROL SUPER VU-TRON® TYPE W PORTABLE POWER CABLE (SIZE) 2000 V 90°C DRY AND WATER RESISTANT 75°C SUN RES (UL) P-7K-123049-MSHA---CSA TYPE W (-40°C) FT5 (TRU-MARK SEQUENTIAL FOOTAGE)
- Custom print available by special order with minimum quantity purchase

Applications:
- Portable power systems
- Entertainment industry activities such as theater, television, nightclubs, motion pictures, mobile communication vans, spotlights and sound systems
- Other similar applications that would require temporary power

Features:
- Water-resistant
- Sunlight-resistant
- Designed to withstand severe environmental conditions
- Flexible and easier to work with in cold temperatures
- Withstands exposure to oil, acids, alkalies, heat, flame, moisture and chemicals
- No "memory" effect when coiling and uncoiling for use
- Meets or exceeds flame test requirements of MSHA and UL
- TRU-Mark® sequential footage marking

Industry Approvals:
- UL Listed
- MSHA Approved
- RoHS Compliant
- CSA Certified

Packaging:
- Lengths cut to order (99 put-up code)
- 1000' reel (41 put-up code)

TYPE W - 2000 VOLT - UL

CATALOG NUMBER	AWG OR kcmil	NOMINAL STRAND	NOMINAL COND. O.D. INCHES	NOMINAL COND. O.D. mm	NOMINAL INS. THICKNESS INCHES	NOMINAL INS. THICKNESS mm	NOMINAL O.D. INCHES	NOMINAL O.D. mm	APPROX. NET WT. LBS/M'(S)	CURRENT AMPS(1)
80611*	8	168/30	0.165	4.19	0.060	1.52	0.465	11.81	133	80
80621*	6	259/30	0.198	5.03	0.060	1.52	0.545	13.84	205	105
80631*	4	416/30	0.233	5.92	0.060	1.52	0.585	14.86	264	140
80641	2	655/30	0.293	7.44	0.060	1.52	0.650	16.51	361	190
80651*	1	827/30	0.330	8.38	0.080	2.03	0.730	18.54	465	220
80661*	1/0	1042/30	0.369	9.37	0.080	2.03	0.750	19.05	521	260
80671*	2/0	1316/30	0.412	10.46	0.080	2.03	0.825	20.96	644	300
80681*	3/0	1660/30	0.490	12.45	0.080	2.03	0.910	23.11	755	350
80691	4/0	2062/30	0.530	13.46	0.080	2.03	0.960	24.38	933	405
80701*	250 kcmil	2496/30	0.606	15.39	0.105	2.67	1.020	25.91	1150	455

(1) Ampacities based on 90°C conductor and 30°C ambient temperature, based on Table 310-17 and Table 400.5(A)(2) in the National Electrical Code for single conductor cables.

* Non-stock item; minimum quantity purchase required.

(S) Actual shipping weight may vary.

COLOR CODE CHART

COLOR	COLOR CODE
Black	01
Gray	10
Red	03
Orange	04
Yellow	05
Green	06
Blue	17

ORDERING INFORMATION

Three easy steps to ordering your Super Vu-Tron Type W Extra Flex Cable:

Catalog Number	Put-Up Code	Color Code
↑ Choose Catalog Number from Catalog Table above	↑ Choose Put-Up Code from Packaging Information (99 for cut-to-order – please specify length needed) (41 for 1000 ft reel put-up size)	↑ Choose Color Code from the Color Code Chart

Examples:

80691.41.01	Type W Extra Flex, 4/0 size, 1,000 ft. reel put-up, black
80691.99.17	Type W Extra Flex, 4/0 size, long-length reel put-up, blue

Make It Yours: Custom print legends available for recurring stock and special orders - ask for details

General Cable

Made in U.S.A.

RoHS Compliant Directive 2011/65/EU

MSHA Mine Safety and Health Administration

Certified Canadian Standard Association

UL LISTED

CAROL® BRAND

Installation — Training and Bending Limitations

Physical Limitations Training and Bending

Overview

Training is the positioning of cable when it is not under tension. Bending is the positioning of cable when it is under tension. When installing cable, the object is to limit the mechanical forces so that the cable's physical and electrical characteristics are maintained for the expected service life. Bends in conductors, multiconductor cables or assemblies of conductors shall be made so that the cable will not be damaged.

A nonshielded cable can tolerate a sharper bend than a shielded cable. This is especially true for cables having helically applied metallic shielding tapes which, when bent too sharply, can separate or buckle and cut into the insulation. Remember that offsets are bends.

The problem is compounded by the fact that most tapes are under jackets that conceal such damage. The extruded polymers used for insulation shields have sufficient conductivity and coverage initially to pass acceptance testing, then fail prematurely due to corona at the shield/insulation interface.

Minimum Bending Radius in Accordance with National Electric Code

Voltage	Conductors	Shielding	Cable Types	Minimum Bending Radius as a Multiple of Conductor/Assembly Diameter		
600 V	Single	Nonshielded	All	5X		
601-2000 V			All	8X		
600 V or 2000 V	Multiconductor or Multiplexed	Nonshielded	TC or TC-ER	1 in. (25 mm) or less	Over 1 in. to 2 in. (>25 mm to 50 mm)	Over 2 in. (>50 mm)
				4X	5X	6X
			MC[1]	7X		
		Shielded	All	12X		
			TC or TC-ER	12X		
			MC	12X/7X[1]		

[1] Per 330.24B Interlocked-Type Armor or Corrugated Sheath.

Cord Product Coding System

Cord Packaging and Color Codes

Example:

02725.41.01

Product Number

Packaging Code Identification Numbers

CODE	PACKAGING	CODE	PACKAGING
15/R5	250' Spool	**41**	1000' Reel
18/R8	500' Spool	**43**	2000' Reel
21	1000' Spool	**44**	2500' Reel
24	2500' Spool	**46**	5000' Reel
35	250' Reel	**85**	250' Coil
38	500' Reel	**99**	LL Reel
40	LL Reel	**XX**	Shorts

Jacket Color Code Identification Numbers

CODE	COLOR	CODE	COLOR
01	Black	**07**	Blue
02	White	**08**	Brown
03	Red	**10**	Gray
04	Orange	**13**	Pink
05	Yellow	**19**	Purple
06	Green	**77**	Light Blue

Cordset Product Coding System

Cordset Packaging and Color Codes

Example: 03302.63.04

Product Number — 03302

Packaging Code Identification Numbers — 63

Jacket Color Code Identification Numbers — 04

Packaging Code Identification Numbers

CODE	PACKAGING	CODE	PACKAGING
13	Clamshell	70	Bulk (with tie)
60	Cuff	73	Bulk (without tie)
61	Box	96	Card
63	Sleeve		

Jacket Color Code Identification Numbers

CODE	COLOR	CODE	COLOR
00	No color	06	Green
01	Black	07	Blue
02	White	08	Brown
03	Red	10	Gray
04	Orange	17	Beige
05	Yellow		

Surface Printed Legend

Our extension cords have surface-printed jackets to provide a means of identifying and distinguishing between different types of extension cords.

Example: 16/3 SJTW OUTDOOR E-XXXXX (UL)

Gauge & Conductor — 16/3

Jacket Compound — SJTW

Application — OUTDOOR

UL Identification # — E-XXXXX

UL Listed — (UL)

Inner Wire Color Code Chart

NO. OF CONDUCTORS	COLOR
2	Black, White
3	Black, White, Green
4	Black, White, Green, Red