

Carolprene® 105°C Welding Cable

105°C, 600 Volt, MSHA Approved



Product Construction:

Conductors:

- 6 AWG through 4/0 AWG fully annealed stranded bare copper

Jacket:

- Carolprene® 105°C, black
- Temperature range: -50°C to +105°C

Jacket Marking:

- CAROLPRENE (SIZE) AWG 105°C WELDING CABLE 600 VOLT P-07-KA100015-MSHA MADE IN USA (TRU-MARK SEQUENTIAL FOOTAGE)

Applications:

- Secondary voltage resistance welding leads in heavy duty or mining applications
- Power supply applications not exceeding 600 volts AC
- Sizes 1/0 and larger for permanent wiring in conduit or tray of 600 V power supplies, hoists, cranes or other applications where flexible power leads must be installed in conduit, raceways or trays

Features:

- Sunlight-resistant
- Designed to withstand severe environmental conditions
- Withstands exposure to oil, acids, alkalies, heat, flame, moisture and chemicals
- Meets or exceeds flame test requirements of MSHA
- TRU-Mark® marking system and indent printed MSHA number

Industry Approvals:

- MSHA Approved
- RoHS Compliant

Packaging:

- 250' (76.2 m), 1000' (304.8 m) reels
- Other put-ups available on special order

Suggested Ampacities For 600 Volt In-Line Applications

AWG	AMPERES	AWG	AMPERES
4/0	405	1	220
3/0	350	2	190
2/0	300	4	140
1/0	260	6	105

Ampacities for portable cable in accordance with NEC Table 400.5(A)(2). May not be suitable for all installations per National Electrical Code®.



CAROLPRENE® 105°C WELDING CABLE – 600 VOLT – 30 AWG STRANDING

CATALOG NUMBER	AWG SIZE	NOMINAL STRAND	NOMINAL O.D.		APPROX. NET WT. LBS/M ^(S)	STD. CTN.
			INCHES	mm		
01758*	6	259/30	0.420	10.67	140	1000'
01757*	4	416/30	0.475	12.07	200	1000'
01756*	2	655/30	0.520	13.21	280	1000'
01755*	1	827/30	0.575	14.61	350	1000'
01754*	1/0	1042/30	0.600	15.24	415	1000'
01753*	2/0	1316/30	0.645	16.38	510	1000'
01752*	3/0	1660/30	0.715	18.16	620	1000'
01751*	4/0	2062/30	0.765	19.43	760	1000'

* Non-stock item; minimum quantity required.
 (S) Actual shipping weight may vary.

WELDING CABLE AMPACITIES SINGLE CONDUCTOR

Required Cable Sizes: For Welding Cable Application

AMPS	length in feet for total circuit for secondary voltages only – do not use this table for 600 Volt in-line applications						
	100'	150'	200'	250'	300'	350'	400'
100	4	4	2	2	1	1/0	1/0
150	4	2	1	1/0	2/0	3/0	3/0
200	2	1	1/0	2/0	3/0	4/0	4/0
250	1	1/0	2/0	3/0	4/0		
300	1/0	2/0	3/0	4/0			
350	1/0	3/0	4/0				
400	2/0	3/0					
450	2/0	4/0					
500	3/0	4/0					
550	3/0	4/0					
600	4/0						

REQUIRED CABLE SIZES SHOWN IN AWG NUMBERS

The total circuit length includes both welding and ground leads (based on 4-volt drop) 60% duty cycle.

These values for current-carrying capacity are based on a copper temperature of 60°C (140°F), an ambient temperature of 40°C (104°F) and yield load factors from approximately 32% for the No. 2 AWG cable to approximately 23% for the No. 3/0 AWG cable, and higher for the smaller sizes. The sizes of cables generally used range from No. 2 AWG to No. 3/0 AWG. In actual service, the load factor may be much higher than indicated without overheating the cable, as the ambient temperature will generally be substantially lower than 40°C.



Carolprene® 105°C Welding Cable

600 Volt



Product Construction:

Conductor:

- 6 AWG through 500 kcmil fully annealed stranded bare copper Class K

Jacket:

- Premium-grade 105°C EPDM, black or red
- Temperature range: -50°C to +105°C

Jacket Marking:

- CAROLPRENE® (SIZE) 105°C WELDING CABLE 600 VOLT MADE IN USA (TRU-MARK SEQUENTIAL FOOTAGE)

Applications:

- Secondary voltage resistance welding leads
- Power supply applications not exceeding 600 volts AC

Features:

- Good flexibility
- Abrasion-resistant
- Good color retention
- TRU-Mark® sequential footage marking

Packaging:

- 250' (76.2 m), 500' (152.4 m), and 1000' (304.8 m) reels
- MCM sizes cut to length
- Other put-ups available on special order

Industry Approvals:

- RoHS Compliant

Suggested Ampacities For 600 Volt In-Line Applications

AWG OR kcmil	AMPERES	AWG	AMPERES
500 kcmil	695	1/0	190
350 kcmil	552	1	160
250 kcmil	445	2	140
4/0	310	4	100
3/0	265	6	75
2/0	223		

Ampacities for portable cable, continuous-duty (ambient temperature of 40°C). May not be suitable for all installations per National Electrical Code®.

Ordering Part Number Example

01771.38.03

4/0 500' put-up in red .03 for red jacket

CAROLPRENE® 105°C WELDING CABLE – 600 VOLT – CLASS K – 30 AWG STRANDING

CATALOG NUMBER	AWG OR kcmil	CONDUCTOR STRAND	NOMINAL O.D.		APPROX. NET WT. LBS/M ^(S)	STD. CTN.
			INCHES	mm		
01778	6	259/30	0.320	8.13	135	250'
01777	4	406/30	0.375	9.53	172	250'
01776	2	646/30	0.465	11.81	260	250'
01775	1	812/30	0.495	12.57	317	250'
01774	1/0	1025/30	0.560	14.22	400	250'
01773	2/0	1274/30	0.615	15.62	487	250'
01772	3/0	1613/30	0.670	17.02	605	250'
01771	4/0	2029/30	0.750	19.05	827	250'
99142*	250 kcmil	2496/30	0.830	21.08	976	250'
99432*	350 kcmil	3441/30	0.950	24.13	1338	250'
99202*	500 kcmil	5054/30	1.200	30.48	1995	250'

© Actual shipping weight may vary.
* Non-stock item; minimum quantity required.

WELDING CABLE AMPACITIES SINGLE CONDUCTOR

Required Cable Sizes: For Welding Cable Application

AMPS	length in feet for total circuit for secondary voltages only – do not use this table for 600 Volt in-line applications						
	100'	150'	200'	250'	300'	350'	400'
100	4	4	2	2	1	1/0	1/0
150	4	2	1	1/0	2/0	3/0	3/0
200	2	1	1/0	2/0	3/0	4/0	4/0
250	1	1/0	2/0	3/0	4/0		
300	1/0	2/0	3/0	4/0			
350	1/0	3/0	4/0				
400	2/0	3/0					
450	2/0	4/0					
500	3/0	4/0					
550	3/0	4/0					
600	4/0						

REQUIRED CABLE SIZES SHOWN IN AWG NUMBERS

The total circuit length includes both welding and ground leads (based on 4-volt drop) 60% duty cycle.

These values for current-carrying capacity are based on a copper temperature of 60°C (140°F), an ambient temperature of 40°C (104°F) and yield load factors from approximately 32% for the No. 2 AWG cable to approximately 23% for the No. 3/0 AWG cable, and higher for the smaller sizes. The sizes of cables generally used range from No. 2 AWG to No. 3/0 AWG. In actual service, the load factor may be much higher than indicated without overheating the cable, as the ambient temperature will generally be substantially lower than 40°C.



FLEX-A-PRENE® WELDING CABLE

BULK CABLE



- Meets SAE J1127.
- Rugged jacket and highly flexible.
- Resists Abrasion, Cut, Tear, Flame, Grease, Oil and Water.
- National Electrical Code article 630 electric welders.
- RoHS Compliant.
- Available Colors include: Black, Blue, Green, Red, and Yellow.
- Sequentially marked.
- Made in the USA.

CONSTRUCTION:

Highly flexible annealed 30 gauge bare copper conductor, insulated with an EPDM jacket and paper separator. Operating temperatures range from -50°C to +105°C (-58°F to +221°F). Rated to 600 volts. Available in black, blue, green, red and yellow jacket colors. Also available on 250, 500, and 1,000 ft. reels. Coiled, boxed and shrink wrap packaging available for 25, 50 or 100 ft. lengths. Custom lengths also available upon request.

Custom indent or standard printing available. Inquire about custom colors.

APPLICATION:

Flex-A-Prene welding cable is designed for all welding applications where a stinger/whip, leads and grounds are used.

GAUGE	STRANDING	O.D	AVG. WALL	WEIGHT/1,000 ft.
#8	168/30	.293	.060	81 lbs.
#6	260/30	.303	.060	109 lbs.
#4	364/30	.331	.060	145 lbs.
#2	624/30	.413	.060	235 lbs.
#1	767/30	.481	.080	301 lbs.
1/0	975/30	.526	.080	372 lbs.
2/0	1,196/30	.564	.080	446 lbs.
3/0	1,547/30	.621	.080	565 lbs.
4/0	1,950/30	.686	.080	700 lbs.
250mcm	2,527/30	.798	.095	925 lbs.
350mcm	3478/30	.918	.095	1,269 lbs.

SUGGESTED AMPACITY FOR WELDING CABLE DISTANCE MEASURED IN FEET*

Amps	50'	75'	100'	125'	150'	175'	200'	225'	250'	275'	300'	325'	350'
100	#4	#2	#2	#1	#1	1/0	2/0	2/0	3/0	3/0	3/0	4/0	4/0
150	#2	#2	#1	1/0	2/0	3/0	3/0	4/0	4/0	250mcm	250mcm	250mcm	350mcm
200	#2	#1	2/0	3/0	3/0	4/0	4/0	250mcm	350mcm	350mcm	350mcm	350mcm	
250	#1	1/0	3/0	4/0	4/0	250mcm	350mcm	350mcm	350mcm				
300	#1	2/0	3/0	4/0	250mcm	350mcm	350mcm	350mcm					
350	1/0	3/0	4/0	250mcm	350mcm	350mcm							
400	2/0	3/0	250mcm	350mcm	350mcm								
450	2/0	4/0	250mcm	350mcm	350mcm								
500	3/0	4/0	350mcm	350mcm									
550	4/0	250mcm	350mcm										
600	4/0	250mcm	350mcm										

This table is for reference only. There are variables in welding applications, therefore it is recommended the user consult an electrical engineer for a particular welding application.

*Distance from power source (per lead).