



## Cable Description

Single core flexible copper conductors to SANS 1411 Part 1, EPM (Ethylene-propylene monomer) insulated, CM (Chlorinated Polyethylene) or CR (Polychloroprene) sheathed, heavy duty welding cables.

## Installation Information

Heavy duty welding for:

- Indoor and outdoor electric welding equipment.

## Properties

Specification	: SANS 1576
Voltage Rating	: 100V ac or dc to earth for welding applications
Core Identification	: EPM/CM - Outer CM sheath is coloured
	: EPM/CR - EPM insulation is coloured and CR sheath is black
Packaging	: 100m shrink-wrapped coils

## Technical Data

### Physical Properties

Colour Code	Conductor				Dimensions		Approx. Cable Mass (kg/m)
	Conductor Size (mm <sup>2</sup> )	Maximum Diameter of Wires (mm)	Approx. Diameter (mm)	Maximum Resistance of Untinned Conductor at 20°C (Ω/km)	Nominal Thickness of Insulation (mm)	Approx. Overall Diameter (mm)	
Green	16	0,31	5,2	1,210	2,0	9,2	0,25
Blue	25	0,31	7,1	0,780	2,0	11,1	0,35
Grey	35	0,31	8,5	0,554	2,0	12,5	0,45
Red	50	0,31	10,4	0,386	2,2	14,8	0,60
Brown	70	0,31	11,6	0,272	2,4	16,4	0,75
Yellow	95	0,31	14,1	0,206	2,6	19,3	1,10
Black	120	0,51	15,6	0,161	2,8	21,2	1,40

### Electrical Properties

Conductor Size (mm <sup>2</sup> )	Class of Welding					D.C. Voltage Drop (mV/A/m)
	Automatic		Manual		Very Intermittent	
	Semi-automatic					
	Maximum Current Rating (A) for Duty Cycles of:					
	100%	85%	60%	30%	20%	
16	131	134	142	172	199	1,6
25	177	182	197	246	289	1,0
35	220	229	252	322	380	0,8
50	280	293	327	426	507	0,6
70	346	364	411	546	654	0,5
95	422	446	508	681	819	0,4
120	493	523	599	809	976	0,3

- \* Note:
- Assumed ambient air temperature is 30°C.
  - Assumed maximum conductor temperature is 85°C.
  - Assumed duty cycle period 5 minutes.
  - Derating of maximum current for other ambient temperatures - use rating factor X as given below:

Ambient temperature, °C	: 25	30	35	40	45
Rating factor, X	: 1,04	1,00	0,95	0,91	0,85