



## Duraclad® Type MC 120/208V Colors

14 AWG through 10 AWG Copper THHN/THWN Insulated Singles. Green Copper THHN Insulated Grounding Conductor. UL Listed. 600 Volts. Rated VV-1. Lightweight Steel Interlocked Armor. Also available in Blue Steel Armor.



Image not to scale. See Table 1 for dimensions.

### CONSTRUCTION:

1. **Conductor:** Solid copper per ASTM B3, class B or C compressed copper and ASTM B3 and B8, or 19-strand combination unilay copper per ASTM B3 and B787
2. **Insulation:** Polyvinyl Chloride with Nylon Sheath Type THHN/THWN
3. **Ground:** Green Polyvinyl Chloride with Nylon Sheath Type THHN/THWN insulated ground conductor
4. **Binder:** Mylar tape with print legend wrapped around assembly
5. **Armor:** Light weight galvanized steel interlocked armor

### APPLICATIONS AND FEATURES:

**Southwire Duraclad® Type MC Cable is suitable for use as follows:**

- Branch and service power distribution in commercial, industrial, institutional, and multi-residential buildings
- Fished or embedded in plaster
- Concealed or exposed installations
- Environmental air-handling spaces per NEC 300.22 (C)
- Places of Assembly per NEC 518.4 and theaters per NEC 520.5
- Installation in cable tray and approved raceways
- Under raised floors for information technology equipment conductors and cables per NEC Article 645
- Class I Div. 2, Class II Div 2, & Class III Div. 1 Hazardous Locations
- Binder tape with print legend wrapped around assembly
- Type THHN/THWN rated 90°C dry
- Unjacketed Type MC cables are rated for dry, indoor locations only per NEC 330.10(A)(10)
- Anti-Short bushing not required

**Southwire Duraclad® Type MC Cable meets or exceeds the following requirements:**

- UL Online Product Guide Info - Metal-Clad Cable (PJAZ) ( [www.ul.com](http://www.ul.com) )
- Federal Specification A-A59544 (formerly J-C-30B)
- NFPA 70 (National Electrical Code), Article 330
- Listed for use in UL 1, 2 and 3 Hour Through Penetration Firestop Systems

### SPECIFICATIONS:

- ASTM B3 Soft or Annealed Copper Wire
- ASTM B8 Concentric-Lay-Stranded Copper Conductors





- ASTM B787 19 Wire Combination Unilay-Stranded Copper Conductors
- UL 83 Thermoplastic Insulated Wires and Cables
- UL 1569 Metal-Clad Cables
- UL 1479 Standard for Safety Fire Tests of Penetration Firestops
- UL 1685 FT4 Vertical-Tray Fire Propagation and Smoke Release Test
- IEEE 1202 FT4 Flame Test (70,000) BTU/hr Vertical Tray Test
- RoHS-2 (European Directive 2011/65/EU)
- Buy American: Compliant with Buy American Requirements, found in 49 U.S.C. § 5323(j); specify "Made in the USA Only!" when ordering to ensure your project receives American made products.
- VW-1 (Vertical-Wire) Flame Test

**SAMPLE PRINT LEGEND:**

SOUTHWIRE E96627 {UL} TYPE MC XX AWG THHN OR THWN CDRS FOR USE IN CABLE TRAYS 600 VOLTS





**Table 1 – Weights and Measurements**

Stock Number	Cond. Size	Conductor Number	Color	Diameter Over Conductor	Conductor Stranding	Insulation Thickness	Ground Size	Diameter Over Armor	Copper Weight	Overall Weight
	AWG/ Kcmil			inch		mils	No. x AWG	inch	lbs/1000ft	lbs/1000ft
<b>14 AWG   Solid</b>										
5517150	14	2	BK,WE	0.064	Solid	20	1x14	0.451	37	122
5517280	14	3	BK,RD,WE	0.064	Solid	20	1x14	0.478	50	142
5517330	14	4	BK,RD,BE,WE	0.064	Solid	20	1x14	0.508	62	164
<b>12 AWG   Solid</b>										
552739	12	2	RD,WE,GN	0.08	Solid	20	1x12	0.484	59	206
556802	12	2	BK,WE,GN	0.08	Solid	20	1x12	0.53	59	223
582167	12	2	BK,RD,GN	0.08	Solid	20	1x12	0.484	59	206
571107	12	2	BE,WE,GN	0.08	Solid	20	1x12	0.484	59	151
552740	12	2	BE,WE,GN	0.08	Solid	20	1x12	0.484	59	206
571115	12	3	BK,BE,WE,GN	0.08	Solid	20	1x12	0.515	79	181
555051	12	3	BK,BE,WE,GN	0.08	Solid	20	1x12	0.514	79	181
571114	12	3	BE,RD,WE,GN	0.08	Solid	20	1x12	0.515	79	181
555053	12	3	BE,RD,WE,GN	0.08	Solid	20	1x12	0.515	79	239
555199	12	4	BK,WE,RD,WE/ RD,GN	0.08	Solid	20	1x12	0.55	99	277
5517160	12	2	BK,WE	0.080	Solid	20	1x12	0.483	59	151
5517290	12	3	BK,RD,WE	0.080	Solid	20	1x12	0.514	79	181
5517340	12	4	BK,RD,BE,WE	0.080	Solid	20	1x12	0.549	99	213
<b>12 AWG   7 Strands</b>										
641926	12	2	BK,WE,GN	0.088	7	20	1x12	0.53	61	235
<b>12 AWG   19 Strands</b>										
562229	12	2	BE,WE,GN	0.088	19	20	1x12	0.505	60	215
556436	12	2	BK,WE,GN	0.088	19	20	1x12	0.505	60	215
562227	12	2	RD,WE,GN	0.088	19	20	1x12	0.504	60	158
568060	12	2	BK,RD,GN	0.088	19	20	1x12	0.515	61	160
571029	12	2	BK,WE,GN	0.088	19	20	1x12	0.515	61	160
<b>12 AWG   7 Strands</b>										
649636	12	3	BK,RD,WE,GN	0.088	7	20	1x12	0.585	81	278
<b>12 AWG   19 Strands</b>										
568067	12	3	BK,RD,BE,GN	0.088	19	20	1x12	0.53	81	189
553632	12	3	BK,WE,RD,GN	0.088	19	20	1x12	0.539	80	254
568065	12	4	BK,RD,BE,YW,GN	0.088	19	20	1x12	0.585	101	297
568061	12	4	BK,RD,BE,WE,GN	0.088	19	20	1x12	0.585	101	297
<b>10 AWG   Solid</b>										
588904	10	2	RD,BE,GN	0.101	Solid	25	1x10	0.55	92	204
579357	10	2	BK,RD,GN	0.101	Solid	25	1x10	0.55	92	204
579360	10	2	BK,BE,GN	0.101	Solid	25	1x10	0.55	92	204
553269	10	2	BE,WE,GN	0.101	Solid	25	1x10	0.55	92	204
553268	10	2	RD,WE,GN	0.101	Solid	25	1x10	0.55	92	204





Stock Number	Cond. Size	Conductor Number	Color	Diameter Over Conductor	Conductor Stranding	Insulation Thickness	Ground Size	Diameter Over Armor	Copper Weight	Overall Weight
	AWG/ Kcmil			inch		mils	No. x AWG	inch	lbs/1000ft	lbs/1000ft
551717◇	10	2	BK,WE	0.101	Solid	25	1x10	0.550	92	204
551730◇	10	3	BK,RD,WE	0.101	Solid	25	1x10	0.593	123	253
551735	10	4	BK,WE,RD,BE,GN	0.101	Solid	25	1x10	0.634	154	374
10 AWG   19 Strands										
677596	10	2	BK,RD,GN	0.113	19	25	1x10	0.58	97	219
553967	10	2	BK,WE,GN	0.113	19	25	1x10	0.583	97	221
677598	10	2	BK,WE,GN	0.113	19	25	1x10	0.58	97	219

All dimensions are nominal and subject to normal manufacturing tolerances

◇ Cable marked with this symbol is a standard stock item

**Note:** Conductor number = number of phase conductors plus neutral. Does not include green ground.

TBA stock codes are estimations only and actual product may vary. Please wait until a stock code is assigned to purchase connectors and/or fittings.





**Table 2 – Electrical and Engineering Data**

Cond. Size	Conductor Number	Min. Bend Radius	DC Resistance at 25°C	AC Resistance at 75°C	Inductive Reactance @ 60Hz	Allowable Ampacity Raceway 75°C	Allowable Ampacity Raceway 90°C
AWG/ Kcmil		Inches	Ω/1000ft	Ω/1000ft	Ω/1000ft	Amp	Amp
<b>14 AWG   Solid</b>							
14	2	3.2	2.631	3.170	0.058	20	25
14	3	3.3	2.631	3.170	0.058	20	25
14	4	3.6	2.631	3.170	0.058	16	20
<b>12 AWG   Solid</b>							
12	2	3.4	1.662	2.002	0.054	25	30
12	2	3.7	1.662	2.002	0.054	25	30
12	2	3.4	1.662	2.002	0.054	25	30
12	2	3.4	1.662	2.002	0.054	25	30
12	2	3.4	1.662	2.002	0.054	25	30
12	3	3.6	1.662	2.002	0.054	25	24
12	3	3.6	1.662	2.002	0.054	25	24
12	3	3.6	1.662	2.002	0.054	25	24
12	3	3.6	1.662	2.002	0.054	25	24
12	4	3.9	1.662	2.002	0.054	20	24
12	2	3.4	1.662	2.002	0.054	25	30
12	3	3.6	1.662	2.002	0.054	25	30
12	4	3.8	1.662	2.002	0.054	20	24
<b>12 AWG   7 Strands</b>							
12	2	3.7	1.662	2.002	0.054	25	30
<b>12 AWG   19 Strands</b>							
12	2	3.5	1.662	2.002	0.054	25	30
12	2	3.5	1.662	2.002	0.054	25	30
12	2	3.5	1.662	2.002	0.054	25	30
12	2	3.6	1.662	2.002	0.054	25	30
12	2	3.6	1.662	2.002	0.054	25	30
<b>12 AWG   7 Strands</b>							
12	3	4.1	1.662	2.002	0.054	25	30
<b>12 AWG   19 Strands</b>							
12	3	3.7	1.662	2.002	0.054	25	30
12	3	3.8	1.662	2.002	0.054	25	24
12	4	4.1	1.662	2.002	0.054	20	24
12	4	4.1	1.662	2.002	0.054	20	24
<b>10 AWG   Solid</b>							
10	2	3.9	1.04	1.253	0.05	35	40
10	2	3.9	1.04	1.253	0.05	35	40
10	2	3.9	1.04	1.253	0.05	35	40
10	2	3.9	1.04	1.253	0.05	35	40
10	2	3.9	1.04	1.253	0.05	35	40
10	2	3.9	1.040	1.253	0.050	35	40





Cond. Size	Conductor Number	Min. Bend Radius	DC Resistance at 25°C	AC Resistance at 75°C	Inductive Reactance @ 60Hz	Allowable Ampacity Raceway 75°C	Allowable Ampacity Raceway 90°C
AWG/Kcmil		Inches	Ω/1000ft	Ω/1000ft	Ω/1000ft	Amp	Amp
10	3	4.7	1.040	1.253	0.050	35	40
10	4	4.4	1.04	1.253	0.05	28	32
10 AWG   19 Strands							
10	2	4.1	1.04	1.253	0.05	35	40
10	2	4.1	1.04	1.253	0.05	35	40
10	2	4.1	1.04	1.253	0.05	35	40

\* Ampacities based upon 2023 NEC Table 310.16 and do not take into account the overcurrent protection limitations in NEC 240.4(D) of 15 Amps for 14 AWG CU, 20 Amps for 12 AWG CU, and 30 Amps for 10 AWG CU (independent of the conductor temperature rating and stranding if size is present in table). Also, see NEC sections 310.15 and 110.14(C) for additional requirements.

\* Ampacities have been adjusted for more than Three Current-Carrying Conductors.

