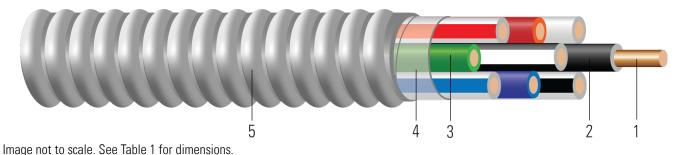


# Armorlite® Type MC THHN/THWN Circuit Size Copper Conductor Multi Circuits

Copper THHN/THWN Insulated Singles. Multiple Circuits Green Insulated Copper Grounding Conductor. UL Listed 600 Volts. Rated VW-1. Lightweight Aluminum Interlocked Armor.



- 1. **Conductor:** Solid or 19 strands class C compressed copper per ASTM B3 and ASTM B8
- 2. Insulation: All phases are insulated with Polyvinyl Chloride with Nylon Sheath Type THHN/THWN
- 3. Ground: Green insulated ground. Polyvinyl Chloride with Nylon Sheath Type THHN/THWN
- 4. **Binder:** Mylar tape

**CONSTRUCTION:** 

5. **Armor**: Aluminum Interlocked Armor

#### **APPLICATIONS AND FEATURES:**

# Southwire Armorlite® Type MC Cable - Multi-Circuit is suitable for use as follow:

- Multiple circuits for branch, feeder 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 645.5(D) & 645.5(D)(2)
- 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.

# Southwire Armorlite® Type MC Cable - Multi-Circuit meets or exceeds the following requirements:

- UL Online Product Guide Info Metal-Clad Cable (PJAZ) ( 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



- 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
- 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.

#### **SAMPLE PRINT LEGEND:**

E96627 {UL} TYPE MC XX AWG THHN OR THWN CDRS WITH X X XX AWG NEUTRAL 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	Num x Neutral Size	Diameter Over Armor	Copper Weight	Overall Weight
	AWG/ Kcmil			inch		mils	No. x AWG	No. x AWG	inch	lbs/ 1000ft	lbs/ 1000ft
				12	AWG   Solid						
641929	12	6	BK,BK,RD,RD,BE,BE,GN	0.08	Solid	20	1x12	3x12	0.577	139	210

All dimensions are nominal and subject to normal manufacturing tolerances

### Table 2 – Electrical and Engineering Data

Cond. Size	Conductor Number	Neutral Stranding	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		
	12 AWG   Solid									
12	6	3	4	1.662	2.002	0.054	20	24		

<sup>\*</sup> 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.



<sup>♦</sup> Cable marked with this symbol is a standard stock item

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.

<sup>\*</sup> Ampacities have been adjusted for more than Three Current-Carrying Conductors.



# Color Table - (/means stripe RD/WE is Red with White Stripe)

Size (Strand)         Cond. Num         Stock Code           12 (Solid)         5         555951         BK, RD, BE, WE, WE, WE, WE, KGN           12 (Solid)         6         690057         BK, RD, BE, BK,WE, WE, WE/BK, RD, RD/WE, GN           12 (Solid)         6         589122         BK, RD, BE, BK,WE, RD, MCWE, BE, WE, WE, WE/BK, WE/RD, WE/BE, GN           12 (Solid)         6         563324         BK, BK,WE, RD, RD/WE, BE, WE, GN           12 (Solid)         8         690065         BK, BK,WE, WE, WE/BK, RD, MD/WE, BE, WE, GN           12 (Solid)         8         596437         BK, RD, BE, BK,WE, RD/WE, BE, WE, RD/BK, BK/RD, GN           12 (Solid)         9         586407         OE, GY/DE, BK, WE/BK, RD, WE/RD, BE, BK/WE, GN, WE           12 (Solid)         10         679370         BK, RD, BK/RD, RD/BK, BE/RD, BK 1, BK 2, BK/WE, RD/WE, BE/WE, WE/BK, WE/BE, WE/RD, WE 1, WE 2, GN           12 (Solid)         12         690073         BK, BK/WE, BK/RD, RD, RD/WE, RD/BK, BE, BE/WE, BE/RD, WE, WE/BK, WE/RD, GN           10 (Solid)         16         552970         BK, RD, BK,WE, WE, WE/BK, RD, RD/WE, BE, BE/WE, GN           10 (Solid)         6         690081         BK, RD, BE, OE, PK, PE, GN           10 (Solid)         10         679161         BK, WE, RD, WE/RD, BE, WE, WE/BK, RD/YW, WE/YW, BE/OE, WE/OE, PE, PE/WE, PK, WE/WE, RD, RD, WE/				
12 (Solid)         6         690057         BK, BK/WE, WE, WE/BK, RD, RD/WE, GN           12 (Solid)         6         589122         BK, RD, BE, BK/WE, RD/WE, BE/WE, WE, WE/BK, WE/RD, WE/BE, GN           12 (Solid)         6         563324         BK, BK,WE, RD, RD/WE, BE, WE, GN           12 (Solid)         8         690065         BK, BK,WE, WE, WE/BK, RD, RD/WE, BE, BE/WE, GN           12 (Solid)         8         596437         BK, RD, BE, BK/WE, RD/WE, BE/WE, RD/BK, BK/RD, GN           12 (Solid)         9         586407         OE, GY/OE, BK, WE/BK, RD, WE/RD, BE, BK/WE, GN, WE           12 (Solid)         10         679370         BK, RD, BK/RD, RD/BK, BE/RD, BK 1, BK 2, BK/WE, RD/WE, BE/WE, WE/BK, WE/BE, WE/RD, WE, WE 1, WE 2, GN           12 (Solid)         12         690073         BK, BK/WE, BK/RD, RD, RD/WE, RD/BK, BE, BE/WE, BE/RD, WE, WE/BK, WE/RD, GN           12 (19)         4         551353         BK, BK/WE, BK,WE, WE, WE/BK, RD, GN, RD/WE           10 (Solid)         6         552970         BK, RD, BK/WE, WE, WE/BK, RD, RD/WE, BE, BE/WE, GN           10 (Solid)         6         587714         BK, RD, BE, OE, PK, PE, GN           10 (Solid)         10         679161         BK, WE, RD, WE/RD, BE, WE/BE, BK/WE, RD/WE, WE/BK, RD, WE/BE, GN           10 (Solid)         10         598031         BK, RD, BE, BK/WE, RD/WE,	Size (Strand)	Cond. Num	Stock Code	Color
12 (Solid)         6         589122         BK, RD, BE, BK/WE, RD/WE, BE/WE, WE, WE/BK, WE/RD, WE/BE, GN           12 (Solid)         6         563324         BK, BK/WE, RD, RD/WE, BE, WE, GN           12 (Solid)         8         690065         BK, BK/WE, WE, WE/BK, RD, RD/WE, BE, WE, GN           12 (Solid)         8         596437         BK, RD, BE, BK/WE, RD/WE, BE/WE, RD/BK, BK/RD, GN           12 (Solid)         9         586407         OE, GY/OE, BK, WE/BK, RD, WE/RD, BE, BK/WE, GN, WE           12 (Solid)         10         679370         BK, RD, BK/RD, BD/BK, BE/RD, BK 1, BK 2, BK/WE, RD/WE, BE/WE, WE/BK, WE/BE, WE/RD, WE, WE 1, WE 2, GN           12 (Solid)         12         690073         BK, BK/WE, BK/RD, RD, RD/WE, RD/BK, BE, BE/WE, BE/RD, WE, WE/BK, WE/RD, GN           12 (19)         4         551353         BK, BK/WE, WE, WE/BK, RD, GN, RD/WE           10 (Solid)         6         552970         BK, RD, BK/WE, RD/WE, WE, WE/BK, GN           10 (Solid)         6         690081         BK, BK/WE, WE, WE/BK, RD, RD/WE, BE, BE/WE, GN           10 (Solid)         6         587714         BK, RD, BE, BK/WE, BK/WE, WE/PK, PE, GN           10 (Solid)         10         679161         BK, WE, RD, WE/BE, BK/WE, RD/WE, WE/PK, WE/PK, WE/PB, GN           10 (Solid)         10         598031         BK, RD, BE, BK/WE, RD, WE, BE/WE, W	12 (Solid)	5	555951	BK, RD, BE, WE, WE/BK, GN
12 (Solid)         6         563324         BK, BK,WE, RD, RD,WE, BE, WE, GN           12 (Solid)         8         690065         BK, BK,WE, WE, WE/BK, RD, RD,WE, BE, BE/WE, GN           12 (Solid)         8         596437         BK, RD, BE, BK,WE, RD,WE, BE,WE, RD,BK, BK,RD, GN           12 (Solid)         9         586407         OE, GY/OE, BK, WE/BK, RD, WE/RD, BE, BK,WE, GN, WE           12 (Solid)         10         679370         BK, RD, BK/RD, RD/BK, BE/RD, BK 1, BK 2, BK/WE, RD/WE, BE/WE, WE/BK, WE/BE, WE/RD, WE, WE 1, WE 2, GN           12 (Solid)         12         690073         BK, BK/WE, BK/RD, RD, RD/WE, RD/BK, BE, BE/WE, BE/RD, WE, WE/BK, WE/RD, GN           12 (19)         4         551353         BK, BK,WE, WE, WE/BK, RD, GN, RD/WE           10 (Solid)         6         552970         BK, RD, BK, RD/WE, WE, WE/BK, RD, WE/BK, GN           10 (Solid)         6         690081         BK, RD, BK, WE, WE, WE/BK, RD, RD/WE, BE, BE/WE, GN           10 (Solid)         6         587714         BK, RD, BE, WE/BE, BK/WE, WE/BK, RD/YW, WE/YW, BE/OE, WE/OE, PE, PE/WE, PK, PK/WE, GN           10 (Solid)         10         679161         BK, WE, RD, WE/BE, BK/WE, WE/BK, RD/WE, WE/BK, WE/RD, WE/BE, GN           10 (Solid)         10         598031         BK, BK/WE, BK/RD, WE/BE, WE, WE/BK, WE/RD, WE, WE/BK, WE/RD, WE/BE, BE, WE, BE, BE/WE, BE/WE, BE/WE, BE, BE/WE, BE/WE, BE/WE, BE, BE/W	12 (Solid)	6	690057	BK, BK/WE, WE, WE/BK, RD, RD/WE, GN
12 (Solid)         8         690065         BK, BK/WE, WE, WE/BK, RD, RD/WE, BE, BE/WE, GN           12 (Solid)         8         596437         BK, RD, BE, BK/WE, RD/WE, BE/WE, RD/BK, BK/RD, GN           12 (Solid)         9         586407         OE, GY/OE, BK, WE/BK, RD, WE/RD, BE, BK/WE, GN, WE           12 (Solid)         10         679370         BK, RD, BK/RD, RD/BK, BE/RD, BK 1, BK 2, BK/WE, RD/WE, BE/WE, WE/BK, WE/BE, WE/BL, WE/RD, WE, WE 1, WE 2, GN           12 (Solid)         12         690073         BK, BK/WE, BK/RD, RD, RD/WE, RD/BK, BE, BE/WE, BE/RD, WE, WE/BK, WE/RD, GN           12 (19)         4         551353         BK, BK/WE, WE, WE/BK, RD, GN, RD/WE           10 (Solid)         6         552970         BK, RD, BK/WE, WE, WE/BK, RD, WE, WE/BK, GN           10 (Solid)         6         690081         BK, BK/WE, WE, WE, WE/BK, RD, RD/WE, BE, BE/WE, GN           10 (Solid)         6         587714         BK, RD, BE, WE/BE, BK/WE, WE/BK, RD/YW, WE/YW, BE/OE, WE/OE, PE, PE/WE, PK, PK/WE, GN           10 (Solid)         10         679161         BK, RD, BE, BK/WE, RD/WE, BE/WE, WE/BW, WE/RD, WE/BE, GN           10 (Solid)         10         598031         BK, RD, BE, BK/WE, RD/WE, BE/WE, WE/BW, WE/RD, WE/BE, GN           10 (Solid)         12         552986         BK, BK/WE, BK/RD, WE, WE/BW, WE/RD, RD/WE, WE/BW, GN           10 (19)	12 (Solid)	6	589122	BK, RD, BE, BK/WE, RD/WE, BE/WE, WE, WE/BK, WE/RD, WE/BE, GN
12 (Solid)         8         596437         BK, RD, BE, BK/WE, RD/WE, BE/WE, RD/BK, BK/RD, GN           12 (Solid)         9         586407         OE, GY/OE, BK, WE/BK, RD, WE/RD, BE, BK/WE, GN, WE           12 (Solid)         10         679370         BK, RD, BK/RD, RD/BK, BE/RD, BK 1, BK 2, BK/WE, RD/WE, BE/WE, WE/BK, WE/BE, WE/RD, WE, WE 1, WE 2, GN           12 (Solid)         12         690073         BK, BK/WE, BK/RD, RD, RD/WE, RD/BK, BE, BE/WE, BE/RD, WE, WE/BK, WE/RD, GN           12 (19)         4         551353         BK, BK/WE, WE, WE/BK, RD, GN, RD/WE           10 (Solid)         6         552970         BK, RD, BK/WE, RD/WE, WE, WE/BK, GN           10 (Solid)         6         690081         BK, BK/WE, WE, WE/BK, RD, RD/WE, BE, BE/WE, GN           10 (Solid)         6         587714         BK, RD, BE, OE, PK, PE, GN           10 (Solid)         10         679161         BK, WE, RD, WE/RD, BE, WE/BE, BK/WE, WE/BK, RD/YW, WE/YW, BE/OE, WE/OE, PE, PE/WE, PK, PK/WE, GN           10 (Solid)         10         598031         BK, RD, BE, BK/WE, BD/WE, BE/WE, WE, WE/BK, WE/RD, WE/BE, GN           10 (Solid)         10         679161         BK, WE, RD, WE/BE, BK/WE, WE/BK, RD, RD/WE, BE, BE/WE, BE/RD, GN           10 (Solid)         10         598031         BK, RD, BE, BE, WE, RD, WE/BE, WE/BE, RD/WE, RD/WE, BE, BE/WE, BE/RD, GN           10 (19)	12 (Solid)	6	563324	BK, BK/WE, RD, RD/WE, BE, WE, GN
12 (Solid)         9         586407         OE, GY/OE, BK, WE/BK, RD, WE/RD, BE, BK/WE, GN, WE           12 (Solid)         10         679370         BK, RD, BK/RD, RD/BK, BE/RD, BK 1, BK 2, BK/WE, RD/WE, BE/WE, WE/BK, WE/BE, WE/RD, WE, WE 1, WE 2, GN           12 (Solid)         12         690073         BK, BK/WE, BK/RD, RD, RD/WE, RD/BK, BE, BE/WE, BE/RD, WE, WE/BK, WE/BD, GN           12 (19)         4         551353         BK, BK/WE, WE, WE/BK, RD, GN, RD/WE           10 (Solid)         6         552970         BK, BK/WE, WE, WE/BK, RD, RD/WE, WE/BK, GN           10 (Solid)         6         690081         BK, BK/WE, WE, WE/BK, RD, RD/WE, BE, BE/WE, GN           10 (Solid)         6         587714         BK, RD, BE, OE, PK, PE, GN           10 (Solid)         10         679161         BK, WE, RD, WE/RD, BE, WE/BE, BK/WE, WE/BK, RD/YW, WE/YW, BE/OE, WE/OE, PE, PE/WE, PK, PK/WE, GN           10 (Solid)         10         598031         BK, RD, BE, BK/WE, RD/WE, BE/WE, WE, WE/BK, WE/RD, WE/BE, GN           10 (Solid)         12         552986         BK, BK/WE, BK/RD, WE, WE/BK, WE/RD, RD/WE, BE, BE, WE, BE, BE/WE, BE/RD, GN           10 (19)         4         674737         BK, BK/WE, BK/WE, RD, RD/WE, WE, WE/BK, GN           10 (19)         5         640523         BK, RD, BE, OE, YW, WE/BK, WE/RD, RD/WE, BE, GN, BE/WE	12 (Solid)	8	690065	BK, BK/WE, WE, WE/BK, RD, RD/WE, BE, BE/WE, GN
12 (Solid)       10       679370       BK, RD, BK/RD, RD/BK, BE/RD, BK 1, BK 2, BK/WE, RD/WE, BE/WE, WE/BK, WE/BE, WE/RD, WE, WE 1, WE 2, GN         12 (Solid)       12       690073       BK, BK/WE, BK/RD, RD, RD/WE, RD/BK, BE, BE/WE, BE/RD, WE, WE/BK, WE/RD, GN         12 (19)       4       551353       BK, BK/WE, WE, WE/BK, RD, GN, RD/WE         10 (Solid)       6       552970       BK, RD, BK/WE, RD/WE, WE, WE/BK, GN         10 (Solid)       6       690081       BK, BK/WE, WE, WE/BK, RD, RD/WE, BE, BE/WE, GN         10 (Solid)       6       587714       BK, RD, BE, OE, PK, PE, GN         10 (Solid)       10       679161       BK, WE, RD, WE/RD, BE, WE/BE, BK/WE, WE/BK, RD/YW, WE/YW, BE/OE, WE/OE, PE, PE/WE, PK, PK/WE, GN         10 (Solid)       10       598031       BK, RD, BE, BK/WE, RD/WE, BE/WE, WE, WE/BK, WE/RD, WE/BE, GN         10 (Solid)       12       552986       BK, BK/WE, BK/RD, WE, WE/BK, WE/RD, RD, RD/WE, RD/BE, BE, BE/WE, BE/RD, GN         10 (19)       4       674737       BK, BK/WE, RD, RD/WE, RD, RD/WE, WE/BK, GN         10 (19)       5       640523       BK, RD, BE, OE, YW, WE/BK, WE/RD, WE/OE, WE/YW, GN         10 (19)       8       551356       BK, BK/WE, WE, WE/BK, RD, RD/WE, BE, GN, BE/WE	12 (Solid)	8	596437	BK, RD, BE, BK/WE, RD/WE, BE/WE, RD/BK, BK/RD, GN
12 (Solid)       12       690073       BK, BK/WE, BK/RD, RD, RD/WE, RD/WE, RD/WE, BE/RD, WE, WE/BK, WE/RD, GN         12 (19)       4       551353       BK, BK/WE, WE, WE/BK, RD, GN, RD/WE         10 (Solid)       6       552970       BK, RD, BK/WE, RD/WE, WE, WE/BK, GN         10 (Solid)       6       690081       BK, BK/WE, WE, WE/BK, RD, RD/WE, BE, BE/WE, GN         10 (Solid)       6       587714       BK, RD, BE, OE, PK, PE, GN         10 (Solid)       10       679161       BK, WE, RD, WE/BE, BK/WE, WE/BK, RD/YW, WE/YW, BE/OE, WE/OE, PE, PE/WE, PK, PK/WE, GN         10 (Solid)       10       598031       BK, RD, BE, BK/WE, RD/WE, BE/WE, WE/BK, WE/RD, WE/BE, BE, WE/BE, GN         10 (Solid)       12       552986       BK, BK/WE, BK/RD, WE, WE/BK, WE/RD, RD/WE, RD/BE, BE, BE/WE, BE/RD, GN         10 (19)       4       674737       BK, BK/WE, RD, RD/WE, WE/BK, WE/RD, WE/BK, GN         10 (19)       5       640523       BK, RD, BE, OE, YW, WE/BK, WE/RD, WE/OE, WE/YW, GN         10 (19)       8       551356       BK, BK/WE, WE, WE/BK, RD, RD/WE, BE, GN, BE/WE	12 (Solid)	9	586407	OE, GY/OE, BK, WE/BK, RD, WE/RD, BE, BK/WE, GN, WE
12 (19)       4       551353       BK, BK,WE, WE, WE/BK, RD, GN, RD/WE         10 (Solid)       6       552970       BK, RD, BK,WE, RD,WE, WE, WE,BK, GN         10 (Solid)       6       690081       BK, BK,WE, WE, WE/BK, RD, RD/WE, BE, BE/WE, GN         10 (Solid)       6       587714       BK, RD, BE, OE, PK, PE, GN         10 (Solid)       10       679161       BK, WE, RD, WE/RD, BE, WE/BE, BK/WE, WE/BK, RD/YW, WE/YW, BE/OE, WE/OE, PE, PE/WE, PK, PK/WE, GN         10 (Solid)       10       598031       BK, RD, BE, BK/WE, RD/WE, BE/WE, WE, WE/BK, WE/RD, WE/BE, GN         10 (Solid)       12       552986       BK, BK/WE, BK/RD, WE, WE/BK, WE/RD, RD, RD/WE, RD/BE, BE, BE/WE, BE/RD, GN         10 (19)       4       674737       BK, BK/WE, RD, RD/WE, WE, WE/BK, GN         10 (19)       5       640523       BK, RD, BE, OE, YW, WE/BK, WE/RD, WE/OE, WE/YW, GN         10 (19)       8       551356       BK, BK/WE, WE, WE/BK, RD, RD/WE, BE, GN, BE/WE	12 (Solid)	10	679370	BK, RD, BK/RD, RD/BK, BE/RD, BK 1, BK 2, BK/WE, RD/WE, BE/WE, WE/BK, WE/BE, WE/RD, WE, WE 1, WE 2, GN
10 (Solid)         6         552970         BK, RD, BK,WE, RD,WE, WE, WE,BK, GN           10 (Solid)         6         690081         BK, BK,WE, WE, WE,BK, RD, RD,WE, BE, BE/WE, GN           10 (Solid)         6         587714         BK, RD, BE, OE, PK, PE, GN           10 (Solid)         10         679161         BK, WE, RD, WE/BE, BK/WE, WE/BK, RD/YW, WE/YW, BE/OE, WE/OE, PE, PE/WE, PK, PK/WE, GN           10 (Solid)         10         598031         BK, RD, BE, BK/WE, RD/WE, BE/WE, WE, WE/BK, WE/RD, WE/BE, GN           10 (Solid)         12         552986         BK, BK/WE, BK/RD, WE, WE/BK, WE/RD, RD, RD/WE, RD/BE, BE, BE/WE, BE/RD, GN           10 (19)         4         674737         BK, BK/WE, RD, RD/WE, WE, WE/BK, GN           10 (19)         5         640523         BK, RD, BE, OE, YW, WE/BK, WE/RD, WE/OE, WE/YW, GN           10 (19)         8         551356         BK, BK/WE, WE, WE, WE/BK, RD, RD/WE, BE, GN, BE/WE	12 (Solid)	12	690073	BK, BK/WE, BK/RD, RD, RD/WE, RD/BK, BE, BE/WE, BE/RD, WE, WE/BK, WE/RD, GN
10 (Solid)       6       690081       BK, BK/WE, WE, WE/BK, RD, RD/WE, BE, BE/WE, GN         10 (Solid)       6       587714       BK, RD, BE, OE, PK, PE, GN         10 (Solid)       10       679161       BK, WE, RD, WE/BE, BK/WE, WE/BK, RD/YW, WE/YW, BE/OE, WE/OE, PE, PE/WE, PK, PK/WE, GN         10 (Solid)       10       598031       BK, RD, BE, BK/WE, RD/WE, BE/WE, WE, WE/BK, WE/RD, WE/BE, GN         10 (Solid)       12       552986       BK, BK/WE, BK/RD, WE, WE/BK, WE/RD, RD, RD/WE, RD/BE, BE, BE/WE, BE/RD, GN         10 (19)       4       674737       BK, BK/WE, RD, RD/WE, WE, WE/BK, GN         10 (19)       5       640523       BK, RD, BE, OE, YW, WE/BK, WE/RD, WE/OE, WE/YW, GN         10 (19)       8       551356       BK, BK/WE, WE, WE/BK, RD, RD/WE, BE, GN, BE/WE	12 (19)	4	551353	BK, BK/WE, WE, WE/BK, RD, GN, RD/WE
10 (Solid) 6 587714 BK, RD, BE, OE, PK, PE, GN 10 (Solid) 10 679161 BK, WE, RD, WE/RD, BE, WE/BE, BK/WE, WE/BK, RD/YW, WE/YW, BE/OE, WE/OE, PE, PE/WE, PK, PK/WE, GN 10 (Solid) 10 598031 BK, RD, BE, BK/WE, RD/WE, BE/WE, WE, WE/BK, WE/RD, WE/BE, GN 10 (Solid) 12 552986 BK, BK/WE, BK/RD, WE, WE/BK, WE/RD, RD, RD/WE, RD/BE, BE, BE/WE, BE/RD, GN 10 (19) 4 674737 BK, BK/WE, RD, RD/WE, WE, WE/BK, GN 10 (19) 5 640523 BK, RD, BE, OE, YW, WE/BK, WE/RD, WE/OE, WE/YW, GN 10 (19) 8 551356 BK, BK/WE, WE, WE/BK, RD, RD/WE, BE, GN, BE/WE	10 (Solid)	6	552970	BK, RD, BK/WE, RD/WE, WE, WE/BK, GN
10 (Solid)       10       679161       BK, WE, RD, WE/RD, BE, WE/BE, BK/WE, WE/BK, RD/YW, WE/YW, BE/OE, WE/OE, PE, PE/WE, PK, PK/WE, GN         10 (Solid)       10       598031       BK, RD, BE, BK/WE, RD/WE, BE/WE, WE, WE/BK, WE/RD, WE/BE, GN         10 (Solid)       12       552986       BK, BK/WE, BK/RD, WE, WE/BK, WE/RD, RD, RD/WE, RD/BE, BE, BE/WE, BE/RD, GN         10 (19)       4       674737       BK, BK/WE, RD, RD/WE, WE, WE/BK, GN         10 (19)       5       640523       BK, RD, BE, OE, YW, WE/BK, WE/RD, WE/OE, WE/YW, GN         10 (19)       8       551356       BK, BK/WE, WE, WE/BK, RD, RD/WE, BE, GN, BE/WE	10 (Solid)	6	690081	BK, BK/WE, WE, WE/BK, RD, RD/WE, BE, BE/WE, GN
10 (Solid)       10       598031       BK, RD, BE, BK/WE, RD/WE, BE/WE, WE, WE/BK, WE/RD, WE/BE, GN         10 (Solid)       12       552986       BK, BK/WE, BK/RD, WE, WE/BK, WE/RD, RD, RD/WE, RD/BE, BE, BE/WE, BE/RD, GN         10 (19)       4       674737       BK, BK/WE, RD, RD/WE, WE, WE/BK, GN         10 (19)       5       640523       BK, RD, BE, OE, YW, WE/BK, WE/RD, WE/OE, WE/YW, GN         10 (19)       8       551356       BK, BK/WE, WE, WE/BK, RD, RD/WE, BE, GN, BE/WE	10 (Solid)	6	587714	BK, RD, BE, OE, PK, PE, GN
10 (Solid)         12         552986         BK, BK/WE, BK/RD, WE, WE/BK, WE/RD, RD, RD/WE, RD/BE, BE, BE/WE, BE/RD, GN           10 (19)         4         674737         BK, BK/WE, RD, RD/WE, WE, WE/BK, GN           10 (19)         5         640523         BK, RD, BE, OE, YW, WE/BK, WE/RD, WE/OE, WE/YW, GN           10 (19)         8         551356         BK, BK/WE, WE, WE/BK, RD, RD/WE, BE, GN, BE/WE	10 (Solid)	10	679161	BK, WE, RD, WE/RD, BE, WE/BE, BK/WE, WE/BK, RD/YW, WE/YW, BE/OE, WE/OE, PE, PE/WE, PK, PK/WE, GN
10 (19)       4       674737       BK, BK/WE, RD, RD/WE, WE, WE/BK, GN         10 (19)       5       640523       BK, RD, BE, OE, YW, WE/BK, WE/RD, WE/OE, WE/YW, GN         10 (19)       8       551356       BK, BK/WE, WE, WE/BK, RD, RD/WE, BE, GN, BE/WE	10 (Solid)	10	598031	BK, RD, BE, BK/WE, RD/WE, BE/WE, WE, WE/BK, WE/RD, WE/BE, GN
10 (19)       5       640523       BK, RD, BE, OE, YW, WE/BK, WE/RD, WE/OE, WE/YW, GN         10 (19)       8       551356       BK, BK/WE, WE, WE/BK, RD, RD/WE, BE, GN, BE/WE	10 (Solid)	12	552986	BK, BK/WE, BK/RD, WE, WE/BK, WE/RD, RD, RD/WE, RD/BE, BE, BE/WE, BE/RD, GN
10 (19) 8 551356 BK, BK/WE, WE, WE/BK, RD, RD/WE, BE, GN, BE/WE	10 (19)	4	674737	BK, BK/WE, RD, RD/WE, WE, WE/BK, GN
	10 (19)	5	640523	BK, RD, BE, OE, YW, WE/BK, WE/RD, WE/OE, WE/YW, GN
8 (19) 8 583642 BK, BK/WE, RD, RD/WE, BE, WE, WE/BK, WE/RD, GN	10 (19)	8	551356	BK, BK/WE, WE, WE/BK, RD, RD/WE, BE, GN, BE/WE
	8 (19)	8	583642	BK, BK/WE, RD, RD/WE, BE, WE, WE/BK, WE/RD, GN

