

# Polyrad® ULTRA Multi-Conductor Cable

## 600 V, 125°C, Shielded

Through a wealth of experience providing effective cabling solutions for challenging and hazardous environments, General Cable responds to yet another industry demand by defining the next generation of cable — Polyrad® ULTRA. As developments and opportunities in transit technology drive the adoption of more sophisticated transit infrastructures, available space decreases. Consequently, the transit industry is experiencing an increasing demand for reduced size and weight of cabling systems. Ideal wherever space is at a premium and high-density cabling is required, Polyrad® ULTRA cables offer better performance, reduced weight and smaller diameters. Polyrad® ULTRA singles are designed into multi-conductor 600 Volt constructions rated at 125°C to meet a variety of high-density cabling applications.

**Product Construction:**

**Conductor:**

- 22 AWG thru 10 AWG soft annealed tinned copper per ASTM B33, B8 and B172

**Insulation:**

- Polyrad® ULTRA flame-retardant, low-smoke irradiated Cross-linked Polyolefin (XLPO)
- Cross-linked fluoropolymer
- Color code: Method 1, E1

**Shield Options:**

- Tinned copper braid
- Foil with drain wire
- Non-shielded

**Jacket:**

- Polyrad® XT flame-retardant, low-smoke irradiated Cross-linked Polyolefin (XLPO)

**Print** (Including but not limited to):

- GENERAL CABLE® (WC) POLYRAD® ULTRA XX/COND XXAWG SHIELDED 125°C 600 V YEAR/MONTH

**Options:**

- Available in E2 or Method 4 color codes
- Available in non-shielded

**Applications:**

- Ideally suited for use where high-density cabling is required, as these cables offer both size and weight advantages
- Engineered and manufactured for both original equipment and retrofit use in electronic equipment
- Utilized where environmental factors require cable characteristics to perform with a high degree of flame retardancy and excellent moisture-stable electrical values. Where reliability is the major concern and where maximum performance will be demanded
- For use on all types of heavy- and light-rail cars, rapid transit cars and diesel-electric locomotives

**Features:**

- Reduced diameter and lighter-weight transit cable - 25% smaller in diameter and lighter in weight than conventional Polyrad® XT 600 V
- Temperature rating at 125°C for long life, higher ampacities and protection from terminal overloads



**Features (cont'd.):**

- Higher ampacities and simplified installations possible due to small outside diameters, flexible stranding and insulation
- Outstanding thermal stability at elevated temperatures
- Maximum flame retardance
- Excellent low-temperature performance; suitable for installation in sub-zero conditions
- Extra-tough, mechanically rugged irradiated thermoset insulation and jacket
- Resistant to most oils and chemicals

**Compliances:**

**Flame Test:**

- IEEE 1202/FT4 (70,000 BTU/hr)
- IEEE 383 (70,000 BTU/hr)
- VW-1

**Other:**

- BSS 7239
- SMP 800-C
- ASTM E662
- NFPA-130 (2017) On-Vehicle
- RoHS and REACH Compliant

**Packaging:**

- Standard reel put-up

\* For 14 AWG and larger

CATALOG NUMBER	AWG		INSULATED DIAMETER		JACKET THICKNESS		CABLE DIAMETER		NET CABLE WEIGHT	
	SIZE	STRANDING	INCHES	mm	MILS	mm	INCHES	mm	LBS/1000'	kg/km
<b>TWO CONDUCTOR POLYRAD® ULTRA SHIELDED - 36 AWG TINNED COPPER BRAID - 85% MINIMUM COVERAGE</b>										
398600	22	19/34	0.060	1.53	20	0.51	0.185	4.7	23	34
398610	20	19/32	0.068	1.73	20	0.51	0.200	5.1	30	45
398620	18	19/30	0.078	1.98	20	0.51	0.220	5.6	36	54
387710	16	19/29	0.084	2.13	20	0.51	0.235	6.0	42	61
398630	14	19/27	0.097	2.46	20	0.51	0.260	6.6	54	80
398640	12	19/25	0.116	2.95	20	0.51	0.300	7.6	73	109
398650	10	65/28	0.147	3.81	20	0.51	0.365	9.3	112	167
<b>THREE CONDUCTOR POLYRAD® ULTRA SHIELDED - 36 AWG TINNED COPPER BRAID - 85% MINIMUM COVERAGE</b>										
398730	22	19/34	0.060	1.53	20	0.51	0.195	5.0	29	43
398740	20	19/32	0.068	1.73	20	0.51	0.210	5.3	37	55
387730	18	19/30	0.078	1.98	20	0.51	0.235	6.0	45	67
398750	16	19/29	0.084	2.13	20	0.51	0.245	6.2	52	77
398760	14	19/27	0.097	2.46	20	0.51	0.275	7.0	69	103
398770	12	19/25	0.116	2.95	20	0.51	0.315	8.0	96	143
398780	10	65/28	0.147	3.81	20	0.51	0.385	9.8	149	222
<b>FOUR CONDUCTOR POLYRAD® ULTRA SHIELDED - 36 AWG TINNED COPPER BRAID - 85% MINIMUM COVERAGE</b>										
443360	22	19/34	0.060	1.53	20	0.51	0.215	5.5	34	51
443370	20	19/32	0.068	1.73	20	0.51	0.235	6.0	42	63
418530	18	19/30	0.078	1.98	20	0.51	0.250	6.3	54	80
418460	16	19/29	0.084	2.13	20	0.51	0.270	6.9	66	98
418510	14	19/27	0.097	2.48	20	0.51	0.300	7.6	89	132
443380	12	19/25	0.116	2.95	20	0.51	0.345	8.8	124	185
443390	10	65/28	0.147	3.81	20	0.51	0.410	10.4	192	286

The multi-conductor cables shown in the following tables are merely a sampling of General Cable's wide range of products. Other conductor sizes, designs and/or specific installation requirements are available to meet virtually all the cabling needs of the transit and locomotive industry. For more information, contact General Cable's Transit inside sales at [info@generalcable.com](mailto:info@generalcable.com).