

Material Specification: CAST Lighting No-Ox® Wire

- ✓ Underground Low Energy Circuit Cable
- ✓ Sunlight Resistant
- ✓ Sequencially numbered printing
- ✓ SPT Style (Parallel)
- ✓ Insulation: PVC
- ✓ Sizes: 16 AWG Through 8 AWG 2 Conductors
- ✓ UL Listed

1.0 Scope

- 1.1. This specification covers the construction requirements for two conductor underground low energy circuit cables for outdoor low voltage lighting. Construction consists of stranded tin-coated annealed copper conductors, laid parallel and insulated with polyvinyl chloride.
- 1.2. Voltage rating is 30 Volts or less

2.0 Construction

2.1. Sizes and Dimensions:

Size AWG	Stranding	Insulation Min. Ave. Wall (Inches)	Normal Dimensions (Inches)	Resistance (Ohms/ft)
18/2	16/0.10"	.045″	.290" x .145"	.006385
16/2	26/0.10"	.045″	.320" x .160"	.004016
14/2	41/0.10"	.045″	.350" x .175"	.002525
12/2	65/0.10"	.045″	.390" x .195"	.00162
10/2	104/0.10"	.045″	.440" x .220"	.00108
8/2	168/0.10"	.060″	.575" x .285"	.00064



2.2. Conductor:

Bunch or rope stranded tin-coated annealed copper conforming to UL requirements

2.3. **Assembly:**

The two conductors are laid parallel and insulated.

2.4. **Insulation:**

Black polyvinyl chloride conforming to Underwriters Laboratories Class 43 thermoplastic, suitable for direct burial. One leg has a raised ridge for polarity. 2.4.1. Operating Temperature Range: 105°C to -25°C

2.5. **Marking:**

- 2.5.1. Plain leg of wire indent printed: "CAST Lighting Size AWG 2/C Underground Low Energy Circuit Cable Sunlight Resistant for Outdoor Lighting c(UL)."
- 2.5.2. Marked with feet remaining to end of roll.

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2.6 **Testing:**

- 2.6.1. Physically and electrically to Underwriters Laboratories miscellaneous wire.
- 2.6.2. Conductors must be able to be separated without showing copper and must still meet UL minimum wall requirements.

2.7 **Product Labels:**

- 2.7.1. Underwriters Laboratories miscellaneous wire labels.
- 2.7.2. Certification by QC that separation test was performed on each reel.

2.8 **Packaging:**

Provided on 500 ft. spools, shrink wrapped over wire to protect wire.

2.9 **Packaging Labels:**

Labeled on outside of spool with No-Ox® label stickers provided by CAST Lighting

2.10. #16/2 Wood Reel Specification (500' put-up)

Inner Core: 6" diameter

Top and Bottom Disk: 12" diameter; 1/4" thickness Height (inside dimension): 7"

2.11. #12/2 Wood Reel Specification (500' put-up)

Inner Core: 6" diameter

Top and Bottom Disk: 12" diameter; ½" thickness Height (inside dimension): 9.5"

2.12. #12/2 Steel Reel Specification (250' put-up)

Inner Core: 6" diameter

Top and Bottom Disk: 12" diameter; ½" thickness Height (inside dimension): 4.5"

2.13. #10/2 Wood Reel Specification (500' put-up)

Inner Core: 6" diameter

Top and Bottom Disk: 15.5" diameter; 5/8" thickness Height (inside dimension): 7"

2.14. #10/2 Wood Reel Specification (250' put-up)

Inner Core: 6" diameter

Top and Bottom Disk: 12" diameter; 5/8" thickness

Height (inside dimension): 6"

2.15. #8/2 Wood Reel Specification (500' put-up)

Inner Core: 6" diameter

Top and Bottom Disk: 15.5" diameter; 5/8" thickness

Height (inside dimension): 9.5"

