

SEATTLE CITY LIGHT
MATERIAL STANDARD

STANDARD NUMBER: **6005.1**

PAGE: 1 of 4

SUPERSEDING: December 1, 2003

EFFECTIVE DATE: June 9, 2006

WIRE, ALUMINUM, WEATHER-RESISTANT, POLYETHYLENE COVERED



1. Foreword

1.1 Scope

This material standard covers the requirements for aluminum, weather-resistant, polyethylene covered, single conductor line wire.

This material standard applies to the following Seattle City Light Stock Number:

Stock No.	Size, AWG	Packaging	Code Word	Type
600318	4/0	reel	Olive	1/C

Aluminum Association code words are cited in this standard for the convenience of the reader. Cable assemblies identified by code word shall be consistent with the requirements of Aluminum Association Table 9.

1.2 Application

This product is used as an overhead, primary distribution system neutral conductor.

This product has no voltage rating and must be installed on insulators adequate for the service voltage.

1.3 Industry Standards

Covered conductor shall meet the applicable requirements of the following industry standards:

ICEA S-70-547-2000 - Standard for Weather-Resistant Polyethylene Covered Conductors

Aluminum Association Code Words for Overhead Aluminum Electrical Conductors, Seventh Edition (January 1999)

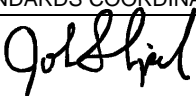
NEMA WC-26-2000 - Binational Wire and Cable Packaging Standard

1.4 Conflict

Where conflict exists, the following order of precedence shall apply:

1. This Seattle City Light Material Standard
2. ICEA standards
3. Aluminum Association
4. Other industry standards

STANDARDS COORDINATOR



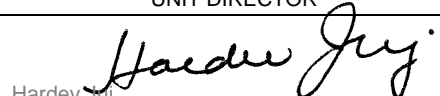
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MATERIAL STANDARD

Wire, Aluminum, Weather-Resistant, Polyethylene Covered

2. Construction**2.1 General**

Covered conductor identified by code word shall be consistent with the requirements of Aluminum Association.

Covered conductor shall meet the requirements of ICEA S-70-547, Part 1 for thermoplastic polyethylene.

Maximum conductor operating temperatures shall be according to **Table A**.

Table A

Covering Type	Normal Service	Emergency Overload	Short Circuit
Thermoplastic PE	75° C	95° C	150° C

2.2 Conductor

Conductor shall meet the requirements of ICEA S-70-547, Part 2.

Conductor shall be 1350-H19 aluminum.

Conductor stranding shall meet the requirements of **Table B**:

Table B

Conductor Size, AWG	Number of Strands
4/0	7

2.3 Covering

Covering shall meet the requirements of ICEA S-70-547, Part 3, with the following clarifications:

Covering shall be black.

Covering shall be low density or linear low density: ASTM D1248 Type I, Class C, Category 4 or 5, Grades E5 or J3.

Minimum and nominal covering thickness values shall meet the requirements of **Table C**:

Table C

Conductor Size, AWG	Minimum Thickness, mils	Nominal Thickness, mils
4/0	54	60

Covering shall be free stripping from the conductor. This may be accomplished by the manufacturing processes or by the addition of a Mylar separator.

2.4 Identification

The outer surface of the covering shall be durably and legibly marked throughout its length, at a maximum interval of 1 meter, with a print legend.

The print legend shall include, but not be limited to, the following information:

- Manufacturer's identification
- Plant symbol
- Type of covering
- Year of manufacturer

MATERIAL STANDARD

Wire, Aluminum, Weather-Resistant, Polyethylene Covered

3. Packaging**3.1 Detailed Requirements**

Covered conductor shall be packaged according to the requirements of NEMA WC-26 and **Table D**.

Table D

Stock No.	Conductor Size, AWG	Packag-ing	Length per Package, $\pm 10\%$, ft.	Outside Flange Diameter, Max., in.	Inside Traverse Width, Max., in.	Weight per 100 ft., Approx., lbs.	Weight per Package, Approx., lbs.	Code Word	Type
600318	4/0	reel	10,000	58	32	25	2,500	Olive	1/C

3.2 Quantity

Actual quantity per reel may vary from the quantity stated on the Purchase Order by plus or minus 10%.

3.3 Reels

Reels shall be nonreturnable type.

Reels may be new or recycled.

Recycled reels (when provided) shall be have the surface of both outside flanges painted over with a solid color.

Recycled reels (when provided) shall be equivalent to new in quality and strength.

Reels shall be protected for shipment with coverings consistent with the recommendations of NEMA WC-26, Section 4.

Reels shall be provided with metal bushings if the gross weight of the reel exceeds 1,000 pounds.

3.4 Product for Shipping

The inner end shall not be brought out through the reel arbor.

The outer end shall be securely fastened with appropriately sized steel staples to the inner side of the flange.

The inner end of the covered conductor shall be brought to the outside of the reel flange and securely fastened with appropriately sized steel staples.

3.5 Marking

Each reel shall be legibly marked with the following information:

- Manufacturer's identification
- Product description, including code word
- Shipping length of covered conductor on reel
- Gross weight
- Tare weight
- Net weight
- Date of manufacture
- Reel identification according to NEMA WC-26, Section 5
- Seattle City Light's Purchase Order Number
- Seattle City Light's Stock Number

MATERIAL STANDARD

Wire, Aluminum, Weather-Resistant, Polyethylene Covered

STANDARD NUMBER: **6005.1**

PAGE: 4 of 4

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4. Shipping

Reels shall be shipped and delivered in the upright position (on the flange edges) on open flatbed trucks suitable for side unloading by forklift.

Reels shall not be strapped or palletted.

Product shall be shipped to the address specified on the Purchase Order.

5. Issuance

Stock Unit: FT

6. Approved Manufacturers

Alcan Cable

General Cable, BICC Brand

Nehring Electrical Works Company

Nexans

Phoenix Wire and Cable Corp.

Prysmian

Southwire Company