

1. Scope

This specification covers the requirements for furnishing and delivering bare stranded all-aluminum conductor (AAC) and aluminum conductor steel reinforced (ACSR) for general use as overhead electrical conductors.

2. Physical Data and Material ID Numbers

Size	Code Word	Type	Stranding	Material ID
3/0 AWG	Phlox	AAC	7	831215
336.4 kcmil	Tulip	AAC	19	831182
795 kcmil	Arbutus	AAC	37	831158
1272 kcmil	Narcissus	AAC	61	831166
4 AWG	Swan	ACSR	6/1	831108
2 AWG	Sparrow	ACSR	6/1	831083
1/0 AWG	Raven	ACSR	6/1	831067
3/0 AWG	Pigeon	ACSR	6/1	831041
336.4 kcmil	Merlin	ACSR	18/1	831132
795 kcmil	Tern	ACSR	45/7	830887

3. Reference Standards

Except as modified herein, these conductors shall meet the applicable requirements of the latest revisions of the following standards:

ASTM B 230 Standard Specification for Aluminum 1350-H19 Wire for Electrical Purposes

ASTM B 231 Standard Specification for Concentric-Lay-Stranded Aluminum 1350 Conductors

ASTM B 232 Standard Specification for Concentric-Lay-Stranded Aluminum Conductors, Coated-Steel Reinforced (ACSR)

ASTM B 498 Standard Specification for Zinc-Coated (Galvanized) Steel Core Wire for Aluminum Conductors, Steel Reinforced (ACSR)

NEMA WC 26-2008 Binational Wire and Cable Packaging Standard

4. Packaging

4.1 Conductors shall be supplied in one continuous length on non-returnable (NR) wood reels or on returnable metal reels (RMT) as specified by the District and shown in the following table:

Size	Code Word	Acceptable Packaging	Length per Package (ft)	Nominal Weight per Package (lb)
3/0 AWG	Phlox	NR 42.28	8,890	1,400
336.4 kcmil	Tulip	NR 66.28	12,030	3,800
336.4 kcmil	Tulip	NR 48.28	6,015	1,900
795 kcmil	Arbutus	NR 66.28	4,960	3,700
1272 kcmil	Narcissus	RMT 90.45	8,170	9,760
4 AWG	Swan	NR 36.22	15,420	885
2 AWG	Sparrow	NR 30.18.12	7,000	640
2 AWG	Sparrow	NR 36.22	9,695	885
1/0 AWG	Raven	NR 36.22	6,095	885
3/0 AWG	Pigeon	NR 36.22	3,835	885
336.4 kcmil	Merlin	NR 48.28	5,695	2,080
795 kcmil	Tern	NR 60.28	4,000	3,580

4.2 Conductor length per reel may vary by plus or minus 10%, except for Arbutus and Narcissus, which shall have a length tolerance per reel of plus 10% or minus 0%.

4.3 Packaging requirements other than indicated in this specification will be specified on the Special Provisions sheet.

4.4 Wood reels may be new or recycled.

4.5 Recycled wood reels (when provided) shall be equivalent to new reels in quality and strength. If recycled reels are used, the manufacturer shall employ a quality assurance program to evaluate and maintain the structural integrity of the recycled reels. The manufacturer shall provide the District with written documentation of the details of this program upon request. No reels shall be used that are loose, weak, damaged or dilapidated. In addition, all reels shall be free from protrusions that might damage the conductor, or hit, or catch on workers or equipment while the reels are spinning.

5. Reel Coverings

To provide physical protection for conductors during normal transit, storage and handling, conductors on reels shall be covered with a protective material in accordance with NEMA WC 26-2008, Section 4.1 as follows:

5.1 All reels with a flange diameter of 72 inches or less shall have a Level 2 Weather Protector over the outer layer of conductor.

5.2 All reels with a flange diameter greater than 72 inches shall have a Level 3 Heavy Duty Physical Protector over the outer layer of conductor with the exception that the following Level 3 materials are unacceptable: plywood, wood veneers and wire bound lagging. Note that Level 3 protection may consist of a double wrap of Level 2 materials.

5.3 Unless otherwise specified, conductor shall not be delivered to the District on reels protected with wood lagging.

6. Shipping

6.1 Reels of conductor shall be shipped via open flatbed type truck or trailer.

6.2 Reels of conductor shall be shipped upright on their flanges, not flopped on their side, from the Manufacturer to the District. Reels must not be palleted.

6.3 Reels of conductor must be positioned on the delivery vehicle such that they can be unloaded from either side of the vehicle by forklift.

6.4 Reels of conductor shall be handled and stored in accordance with the recommendations of NEMA WC 26-2008, Section 6.

7. Marking

Each reel shall be legibly and durably marked on the outside of one flange, as a minimum, with the following information:

7.1 Manufacturer's identification and reel number

7.2 Conductor description, including size, type, stranding and code word

7.3 Flange diameter, inside traverse and drum diameter (in)

7.4 Shipping length of conductor on reel (ft)

7.5 Gross weight, tare weight and net weight (lb)

7.6 District's Purchase Order Number

8. Warranty

8.1 The Supplier warrants that the conductor furnished under this specification is of first class material and workmanship throughout, that it has been tested in accordance with the applicable requirements of this specification, and that the results of the tests comply with the requirements of this specification.

8.2 The Supplier agrees to replace (supply new conductor) all conductor that is unsuitable for operation or fails in operation due to defective design, material or workmanship during normal and proper use, within 12 months after being energized or 18 months after delivery to the District.

8.3 All replacements by the Supplier under the provisions of this specification shall be made free of charge to the District, f.o.b. the original delivery point.

9. Inspection

The District reserves the right to inspect all conductor either at the Manufacturer's plant, upon receipt or at the time of installation. Conductor not meeting the specification, or conductor that is damaged, will be rejected and returned at the Supplier's expense. Acceptance of delivery does not relieve the Supplier from meeting all of the requirements of this specification.

10. Evaluation of Bids

The following factors will be considered in the analysis and evaluation of bids and subsequent bid award:

10.1 Base price

10.2 Escalations

10.3 Past experience with Bidder

10.4 Construction details

10.5 Adherence to specification

10.6 Rental fees for returnable reels

10.7 Delivery schedule

11. General Bidding Conditions

The attached General Bidding Conditions are made a part of this specification.