

SPECIAL SPECIFICATION
FOR
ZINC-COATED STEEL WIRE STRAND
FOR USE AS
OVERHEAD GROUND, GUY, SPAN OR MESSENGER WIRE

SCOPE

This specification describes the minimum requirements for utilities grade Class A zinc-coated steel wire strand per ASTM Stranded A475, latest revision. Where differences exist, this specification shall govern.

1.0 MATERIAL

The material used for the wires and coating shall conform to the requirements of ASTM A475.

2.0 STRANDING

2.1 No strand joints or splices are permitted.

2.2 The strand shall consists of seven wires and shall meet the stranding requirements of ASTM A475. Joints in individual wires of the strand which conform to the type, spacing and marking requirements of the specification are permitted.

3.0 PHYSICAL PROPERTIES

3.1 The breaking strength, weight, elongation, ductility, wire diameter, coating characteristics and finish shall conform to ASTM A475. Some of these properties are summarized in Table 3.1. For properties not listed, see A475.

TABLE 3.1 PHYSICAL PROPERTIES OF ZINC-COATED STEEL
WIRE STRAND

Nominal Dia. Strand	Wires per Strand	Nominal Dia. of Coated Wires	Approx. wt/kft	Minimum Breaking Strength	Minimum of Zinc Coating Wt.*
Inches		Inches	Pounds	Pounds	Oz/Ft ²
3/16	7	0.065	80	2,400	0.50
9/32	7	0.093	164	4,600	0.70
5/16	7	0.109	225	6,000	0.80
3/8	7	0.120	273	11,500	0.85
7/16	7	0.145	399	18,000	0.90
1/2	7	0.165	517	25,000	0.90

*Class A

3.2 The finish of the zinc-coated wire shall be free from imperfections and of uniform thickness.

4.0 PACKAGING AND MARKING FOR SHIPMENT

4.1 Reels shall be substantially constructed and in good condition to prevent damage to the cable. Length shall be specified on the Invitation to Bid.

4.2 Each coil or reel shall be plainly marked with a tag or stencil showing the manufacturer's name, the length, diameter, number of wires, grade, class, ASTM designation A475, and the purchase order number.

5.0 INSPECTION AND TEST

5.1 Strand samples selected from any shipment by the Department must meet all requirements of and may be subjected to any tests specified by ASTM A475. Failure to meet these requirements shall be cause for rejection of the shipment. These tests shall be made at the Department's expense.

5.2 If specified in the Invitation to Bid, a mill test report shall be provided by the manufacturer which shows that the cable supplied meets the requirements of ASTM Specification A475. The cost for these reports shall be included in the unit cost.

6.0 MEASUREMENT

6.1 Measurement shall be based on the linear footage of strand on nonreturnable reels assembled as specified on the Invitation to Bid.

6.2 Payment will be made on a footage basis as quoted.

7.0 GUARANTEE

The successful bidder for material under this specification shall agree to the replacement of any length of strand found to be defective in workmanship or material within one year from the date of delivery to the purchaser.