Standard Method of Test for

Steel Welded Wire Reinforcement, Plain, for Concrete

AASHTO Designation: M 55M/M 55-09 (2013) ASTM Designation: A185/A185M-07



American Association of State Highway and Transportation Officials 444 North Capitol Street N.W., Suite 249 Washington, D.C. 20001

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1. SCOPE

- 1.1. This specification covers welded wire reinforcement to be used for the reinforcement of concrete. Note 1—Welded wire for concrete reinforcement has been described by various terms: welded wire fabric (WWF), fabric, and mesh. The wire reinforcement industry prefers the term "welded wire reinforcement" or WWR as being more representative of the range of products being manufactured. Therefore, the term "welded wire fabric" has been replaced with the term "welded wire reinforcement" in this specification and in related specifications.
- 1.2. This specification is applicable for orders in either SI units (M 55M) or in inch-pound units (M 55). SI units and inch-pound units are not necessarily equivalent. Inch-pound units are shown in brackets in the text for clarity but they are the applicable values when the material is ordered to M 55. The values stated in each system are not exact equivalents; therefore, each system must be used independently of the other. Combining values may result in nonconformance with the specification.

2. REFERENCED DOCUMENTS

- 2.1. AASHTO Standard:
 - M 32M/M 32, Steel Wire, Plain, for Concrete Reinforcement
- **2.2**. *ASTM Standards*:
 - A700-05, Standard Practices for Packaging, Marking, and Loading Methods for Steel Products for Shipment (withdrawn 2014)
 - Adjunct to A185, Steel Welded Wire Reinforcement, Plain, for Concrete and A 497 Steel Wire, Deformed, for Concrete Reinforcement: ADJA0185

2.3. *Military Standard*:

■ MIL-STD-129, Marking for Shipment and Storage

2.4. Federal Standard:

■ Fed. Std. No. 123, Marking for Shipment (Civil Agencies)

3. TERMINOLOGY

- **3.1**. *Description of Terms Specific to This Standard*:
- **3.1.1**. *convoluted wire*—when wire for welded reinforcement is formed into a sinusoidal wave shape, it is commonly referred to as convoluted wire. The wire is used in the manufacture of cages for certain applications of concrete pipe reinforcing.
- 3.1.2. *welded wire reinforcement*—as used within the scope and intent of this specification, designates a material composed of cold-drawn steel wire, as drawn or galvanized, fabricated into sheets or rolls by the process of electric-resistance welding. The finished material shall consist essentially of a series of longitudinal and transverse wires arranged substantially at right angles to each other and welded together at points of intersection.

4. ORDERING INFORMATION

- 4.1. It shall be the responsibility of the purchaser to specify all requirements that are necessary for the manufacture and delivery of the welded wire reinforcement under this specification. Such requirements to be considered include, but are not limited to, the following:
- 4.1.1. Quantity (mass or square area);
- 4.1.2. Name of material (welded wire reinforcement for concrete reinforcement);
- 4.1.3. Wire spacings and sizes;
- 4.1.4. Minimum yield strength if Supplement S1 of M 32M/M 32 applies;
- 4.1.5. Yield strength measurement; the purchaser shall have the options described in M 32M/M 32 under the Inspection section (Section 11.3);
- 4.1.6. Exclusion of oversteeling, if required (Section 9.4.2);
- 4.1.7. Length and width of sheets or rolls;
- 4.1.8. Packaging (Section 16);
- 4.1.9. Request for outside inspection (if not requested, Section 15.1 applies); and
- 4.1.10. AASHTO designation and year of issue.

Note 2—A typical ordering description is as follows: 930-m^2 welded wire reinforcement for concrete reinforcement, $100 \times 300\text{-W15} \times \text{W6}$ in flat sheets, 2.4 m wide $\times 6.1$ m long, in secured lifts, to M 55M. [10,000-ft² welded wire reinforcement for concrete reinforcement, 4×12 W15 \times W6 in flat sheets, 96 in. wide $\times 240$ in. long, in secured lifts, to M 55.]

5. MATERIALS

5.1. The wire used in the manufacture of welded wire reinforcement shall conform to M 32M/M 32 and its Supplement S1 if so ordered.