



Designation: A 951 – 00

Standard Specification for Masonry Joint Reinforcement¹

This standard is issued under the fixed designation A 951; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ε) indicates an editorial change since the last revision or reapproval.

1. Scope

1.1 This specification covers masonry joint reinforcement fabricated from cold drawn steel wire. Joint reinforcement consists of longitudinal wires welded to cross wires.

1.2 The values stated in inch-pound units are to be regarded as the standard. The values given in parentheses are for information only.

2. Referenced Documents

2.1 ASTM Standards:

A 82 Specification for Steel Wire, Plain, for Concrete Reinforcement²

A 153/A 153M Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware³

A 185 Specification for Steel Welded Wire Fabric, Plain, for Concrete Reinforcement²

A 496 Specification for Steel Wire, Deformed, for Concrete Reinforcement²

A 580/A 580M Specification for Stainless and Heat-Resisting Steel Wire⁴

A 641/A 641M Specification for Zinc-Coated (Galvanized) Carbon Steel Wire³

3. Ordering Information

3.1 Orders for material to this specification should include the following information:

3.1.1 Quantity (linear feet) (metres),

3.1.2 Type (truss, ladder),

3.1.3 Width (nominal thickness of masonry wall),

3.1.4 Wire size and wire specification,

3.1.5 Finish (see Section 6),

3.1.6 Packaging (see Section 12), and

3.1.7 ASTM designation number and year of issue.

NOTE 1—A typical ordering description is as follows:
10 000 ft joint reinforcement, No. 8 standard (W1.7) truss, wire to ASTM

A 82—_____, hot-dip galvanized to ASTM A 153—_____, conforming to ASTM A 951—_____.

4. Materials and Manufacture

4.1 Wire used in the manufacture of masonry joint reinforcement shall be round and shaped and conform to the applicable provisions of Specification A 82 or A 580, Type 304, except as modified herein.

4.2 Masonry joint reinforcement shall be assembled by automatic machines or by other suitable mechanical means that will assure accurate spacing and alignment of all members of the finished product.

4.3 Longitudinal and cross wires shall be securely connected at every intersection by an electric-resistance welding process that includes both fusion welding together with applied pressure to join the materials.

4.4 Longitudinal wires shall be deformed. One set of two deformations shall occur around the perimeter of the wire at a maximum spacing of 0.7 times the diameter or width of the wire, but not less than eight sets per inch (25 mm) of length.

NOTE 2—Wire used for joint reinforcement is knurled to form deformations and as such it does not come under the deformation requirements in Specification A 496.

5. Mechanical Requirements

5.1 *Tensile Properties*—Wire used in the fabrication of masonry joint reinforcement shall conform to the requirements of Table 1 based on nominal area of the wire.

5.2 Tension Tests:

5.2.1 Tension tests shall be made on individual wires cut from the finished product and tested either across or between the welds. No less than 50 % shall be across welds.

5.2.2 Tension tests across a weld shall have the welded joint located approximately at the center of the wire being tested.

5.2.3 Tensile strength shall be the average of four test values determined by dividing the maximum test load by the specified nominal cross-sectional area of the wire.

5.3 *Reduction of Area*—The ruptured section of the tensile specimen is measured to determine this property. The measurement shall be made only when rupture has occurred at a sufficient distance from the center of the weld to permit an accurate measurement of the fractured section. Additional testing is permitted when a suitable ruptured section is not

¹ This specification is under the jurisdiction of ASTM Committee A01 on Steel, Stainless Steel, and Related Alloys and is the direct responsibility of Subcommittee A01.05 on Steel Reinforcement.

Current edition approved Sept. 10, 2000. Published October 2000. Originally published as A 951 – 96. Last previous edition A 951 – 98.

² *Annual Book of ASTM Standards*, Vol 01.04.

³ *Annual Book of ASTM Standards*, Vol 01.06.

⁴ *Annual Book of ASTM Standards*, Vol 01.03.