



Designation: A 740 – 98

Standard Specification for Hardware Cloth (Woven or Welded Galvanized Steel Wire Fabric)¹

This standard is issued under the fixed designation A 740; 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.

This standard has been approved for use by agencies of the Department of Defense.

1. Scope

1.1 This specification covers woven or welded galvanized steel wire fabric commercially known as hardware cloth. It is customarily used for window and screen door guards, tree guards, industrial machine guards, sand screens, and grain bins. It serves as a protective screen against rodents and is used for many other home, farm, and industrial purposes.

1.2 The values stated in inch-pound units are to be regarded as the standard.

2. Referenced Documents

2.1 ASTM Standards:

A 90/A 90M Test Method for Weight of Coating on Zinc-Coated (Galvanized) Iron or Steel Articles²

B 6 Specification for Zinc (Slab Zinc)³

E 29 Practice for Using Significant Digits in Test Data to Determine Conformance with Specifications⁴

2.2 Military Standards:

MIL-STD-129 Marking for Shipment and Storage⁵

MIL-STD-147 Palletized and Containerized Unit Loads 40 Inch × 48 Inch Pallets, Skids, Runners, or Pallet Type Base⁵

MIL-STD-1188 Commercial Packaging of Supplies and Equipment⁵

3. Terminology

3.1 Definitions of Terms Specific to This Standard:

3.1.1 *hardware cloth*—as used in this specification, designates a material composed of cold-drawn steel wires which have been fabricated into fabric (or so-called “mesh”), formed by the process of weaving or electrical welding, and subsequently galvanized (zinc coated) by the hot-dip process. The

finished material consists essentially of a series of longitudinal (warp) and transverse (filler) wires arranged substantially at right angles to each other.

3.1.2 *mesh size*—as it pertains to cloth, is the dimensional center-to-center distance between warp wires and filler wires in that order. Measurements include the width of one opening plus the thickness of one parallel zinc-coated wire. Examples are 1 by 2 in., ½ by 1 in., etc. Thus, a 1 by 2-in. mesh denotes that the warp and filler wires are spaced on 1-in. (25.4-mm) and 2-in. (50.8-mm) centers respectively. For fabric with a square mesh the mesh size is indicated by a single value.

4. Ordering Information

4.1 Orders for material under this specification shall include the following information:

4.1.1 Quantity (number of rolls),

4.1.2 Name of material (1.1),

4.1.3 Mesh size (Table 1),

4.1.4 Wire size (Table 1),

4.1.5 Width (5.7.1),

4.1.6 Roll length (5.7.2),

4.1.7 Woven or welded, if necessary (Table 1), and

4.1.8 ASTM designation and year of issue.

NOTE 1—A typical ordering description is as follows: “ten 100-ft Rolls of ¼ -in. Hardware Cloth, Wire Size 0.0258 in., 24 in. wide, to ASTM A 740 – ____.”

5. Manufacture

5.1 *Base Metal*—The base metal of hardware cloth shall be of good commercial quality carbon steel wire.

5.2 *Zinc for Coating*—The zinc used in the galvanizing process shall be any grade of zinc conforming to Specification B 6.

5.3 *Fabrication*—Hardware cloth shall be of wire woven or welded into squares or rectangles and then galvanized by the hot-dip process. The mesh size and wire size after galvanizing shall conform to Table 1. Approximate weights for the product are also shown in Table 1.

¹ This specification is under the jurisdiction of ASTM Committee A-5 on Metallic Coated Iron and Steel Products and is the direct responsibility of Subcommittee A05.12 on Wire Specifications.

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² Annual Book of ASTM Standards, Vol 01.06.

³ Annual Book of ASTM Standards, Vol 02.04.

⁴ Annual Book of ASTM Standards, Vol 14.02.

⁵ Available from Standardization Documents Order Desk, Bldg. 4 Section D, 700 Robbins Ave., Philadelphia, PA 19111-5094, Attn: NPODS.