



Designation: A390 – 06 (Reapproved 2026)

Standard Specification for Zinc-Coated (Galvanized) Steel Poultry Fence Fabric (Hexagonal and Straight Line)¹

This standard is issued under the fixed designation A390; 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 zinc-coated fence fabric intended for enclosure of poultry, or to prevent entry into special areas. It is available in three styles as:

1.1.1 *Poultry Netting*, consisting of a mesh of woven wire with openings hexagonal in shape,

1.1.2 *Poultry-and-Garden Fence Fabric*, consisting of a series of horizontal (line) wires with vertical (stay) wires wrapped around the line wires, forming rectangular openings, and

1.1.3 *Chick Fence Fabric*, similar to poultry-and-garden fabric except that the wires at the bottom of the fabric are placed at a closer spacing.

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

1.3 *This international standard was developed in accordance with internationally recognized principles on standardization established in the Decision on Principles for the Development of International Standards, Guides and Recommendations issued by the World Trade Organization Technical Barriers to Trade (TBT) Committee.*

2. Referenced Documents

2.1 ASTM Standards:²

A90/A90M Test Method for Weight [Mass] of Coating on Iron and Steel Articles with Zinc or Zinc-Alloy Coatings
A700 Guide for Packaging, Marking, and Loading Methods for Steel Products for Shipment
A902 Terminology Relating to Metallic Coated Steel Products
B6 Specification for Zinc

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

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² For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at www.astm.org/contact. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

2.2 U.S. Federal Standard:

Fed. Std. No. 123 Marking for Shipment (Civil Agencies)³

2.3 U.S. Military Standards:

MIL-STD-129 Marking for Shipment and Storage³

3. Terminology

3.1 *Definitions*—For definitions of terms used in this specification, see Terminology A902.

NOTE 1—The following term used in this specification is defined in Terminology A902: *base metal*.

3.2 Definitions of Terms Specific to This Standard:

3.2.1 *netting*—a mesh of woven wire with openings hexagonal in shape. The style is as designated by design numbers shown in Table 1. The mesh may be further strengthened by addition of straight line wires spaced approximately 12 in. (305 mm) apart, except spaced at approximately 6-in. (152-mm) intervals for 12 and 18-in. (305 and 457-mm) netting heights. Design numbers are used in ordering the netting style desired.

3.2.2 *poultry-and-garden fence fabric and chick fence fabric*—fence styles constructed by a series of horizontal (line) wires with vertical (stay) wires wrapped around the line wires, forming rectangular openings. Table 2 and Table 3 along with Fig. 1 and Fig. 2 are intended to show the characteristics of each design number. Design numbers are used for ordering the desired fence style.

4. Ordering Information

4.1 Orders for poultry netting shall include the following information:

- 4.1.1 Name of material (poultry netting),
- 4.1.2 Quantity (number of rolls),
- 4.1.3 Design number (see 6.2),
- 4.1.4 Class of coating (see 10.1),
- 4.1.5 Certification if required (see Section 14), and
- 4.1.6 ASTM designation and year of issue.

4.2 Orders for poultry-and-garden fence fabric or chick fence fabric shall include the following information:

³ Available from Standardization Documents Order Desk, Bldg. 4 Section D, 700 Robbins Ave., Philadelphia, PA 19111-5094, Attn: NPODS.

**TABLE 1 Design Numbers for Poultry Netting
(Furnished in 150-ft Rolls)**

NOTE 1—*Design Numbers*: In accordance with trade practice, each design of netting is expressed by a combination of three numbers. The first designates the mesh opening in inches, the second, is the wire gauge size, and the third is the height in inches. For convenience, the information contained in the design number is repeated in separate columns.

Design Number, in./gauge/in.	Mesh Size, in.	Wire Gauge	Height of Netting, in.
1 by 20 by 12	1	20	12
1 by 20 by 18	1	20	18
1 by 20 by 24	1	20	24
1 by 20 by 36	1	20	36
1 by 20 by 48	1	20	48
1 by 20 by 60	1	20	60
1 by 20 by 72	1	20	72
2 by 20 by 24	2	20	24
2 by 20 by 36	2	20	36
2 by 20 by 48	2	20	48
2 by 20 by 60	2	20	60
2 by 20 by 72	2	20	72

4.2.1 Name of material (poultry-and-garden fence fabric or chick fence fabric),

4.2.2 Style of fence fabric (see 3.2),

4.2.3 Quantity (number of rolls),

4.2.4 Design (see 6.2),

4.2.5 Certification if required (see Section 14), and

4.2.6 ASTM designation and year of issue.

4.3 All rolls of poultry netting and poultry-and-garden fence fabric and chick fence fabric accepted by the purchaser shall be billed to him on the basis of the number and original length of the rolls before sampling unless changed by contractual arrangement. Poultry netting covered by this specification shall be furnished in 150-ft (46-m) rolls, poultry-and-garden fence fabric and chick fence fabric shall be furnished in 10-rod (50-m) rolls.

NOTE 2—A typical ordering description is as follows: Netting: 50 rolls 1 by 20 by 48 in., Class 1, galvanize before weaving certified to Specification A390 dated , Poultry fence: 50 rolls poultry-and-garden fence fabric 1948-6-14½ Class 1 Galvanizing certified to Specification A390 dated.

5. Zinc for Coating

5.1 The zinc used for the coating shall be any grade of zinc conforming to Specification B6.

6. Manufacture

6.1 The base metal of the fabric shall be of a good commercial quality of steel wire.

6.2 The designs of netting, poultry-and-garden fence fabric, and chick fence fabric covered by this specification shall be in accordance with those shown in Table 1, Table 2, and Table 3.

7. Dimensions and Permissible Variations

7.1 The size of the mesh openings in the netting shall be 1 in. (25 mm) or 2 in. (51 mm) as specified (see Table 1). The opening tolerance shall be $\pm \frac{1}{8}$ in. (3.2 mm) when measured across the flats.

7.2 The height of the netting and fence fabrics (center to center distance between top and bottom wires) shall not vary more than ± 1 in. (25 mm).

7.3 The tolerance for fence fabrics individual line and stay wire spacing shall be $\pm \frac{3}{8}$ in. (9.5 mm). This does not alter the overall height of the fabric as designated in 7.2.

7.4 The length tolerance for all styles of netting and fence fabric covered by this specification shall be $-0, +3$ %.

7.5 Due to the mechanics of the manufacturing process, a certain amount of out-of-roundness can be expected on stay wires of the finished fence fabric. No limits are placed on out-of-roundness of wire in the fabric.

8. Workmanship

8.1 Splicing of individual line wires by means of a wrap joint or an electric butt weld is permitted. The maximum number of line wire splices or joints shall not exceed one half of the number of line wires in any roll of fence. Such splices or joints shall be made in a workmanlike manner.

8.2 Patching of voids in the poultry netting by means of hand weaving is permitted. Such repair shall be made in a workmanlike manner.

8.3 The fence fabrics shall have uniformly wrapped joints and all stay wires shall be properly spaced and substantially perpendicular to the line wires.

9. Sampling

9.1 *Samples*—For the purpose of tests, select at random, one roll from every 50 rolls or fraction thereof in a lot or a total of seven rolls, whichever is less. A lot shall consist of all the rolls of a single design offered for delivery at the same time.

9.2 *Test Specimens for Poultry Netting*—Specimens for testing shall consist of 1 ft² (0.09 m²) selected at any point in the width of the netting and taken from the end of the roll, but not to include the selvage. Subject a specimen from each sample to tests for weight of coating in accordance with Section 10.

9.3 *Test Specimens for Fence Fabric*—Cut a length of fabric, approximately 3 ft or 1 m long, from the end of the sample roll to include at least three of the vertical (stay) wires. The test specimens for weight of coating determination shall consist of a number of lengths cut from a single wire, excluding all wire knots, wraps, and welded sections, such that the total length of wire test is at least 6 in. (152 mm), but preferably about 12 in. (305 mm). Test at least six test specimens for weight of coating in accordance with Section 10.

9.3.1 Select as follows:

9.3.1.1 One specimen from the top or bottom wires,

9.3.1.2 Three specimens from horizontal (line) wires other than the top or bottom wires, and

9.3.1.3 Two specimens from vertical (stay) wires.

9.4 Instead of testing wire from the completed fence fabric in accordance with 9.2 or 9.3, the manufacturer may elect to establish compliance with Section 10 of this specification by tests made on wire prior to fabrication. If the manufacturer