



Designation: A 810 – 01

Standard Specification for Zinc-Coated (Galvanized) Steel Pipe Winding Mesh¹

This standard is issued under the fixed designation A 810; 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 various designs of welded wire mesh or twisted (woven) hexagonal wire mesh, zinc coated before fabrication, to be used as reinforcement for the concrete applied in the manufacture of negative buoyancy pipe needed for laying pipe in marshes or in water. The mesh is also used as reinforcement for concrete applied to pipe as a bendable or nonbendable mechanical protective coating when laying pipe in a harsh environment.

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.

1.3 The text of this standard references notes and footnotes that provide explanatory material. These notes and footnotes (excluding those in tables and figures) shall not be considered as requirements of the standard.

2. Referenced Documents

2.1 ASTM Standards:

A 90/A 90M Test Method for Weight (Mass) of Coating on Iron and Steel Articles with Zinc or Zinc-Alloy Coatings²

A 370 Test Methods and Definitions for Mechanical Testing of Steel Products³

A 641/A 641M Specification for Zinc-Coated (Galvanized) Carbon Steel Wire²

A 902 Terminology Relating to Metallic Coated Steel Products²

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.

Current edition approved April 10, 2001. Published June 2001. Originally published as A 810 – 83. Last previous edition A 810 – 00.

² Annual Book of ASTM Standards, Vol 01.06.

³ Annual Book of ASTM Standards, Vol 01.03.

B 6 Specification for Zinc⁴

3. Terminology

3.1 *Definitions*—For definitions of terms used in this specification, see Terminology A 902.

4. Classification

4.1 The steel pipe winding mesh is classified by type, based on method of manufacture, and by design number, related to width, number of longitudinal wires, and wire sizes.

4.2 Types of Fabric:

4.2.1 *Type TW*—Fabric manufactured by twisting wires to form a mesh with a series of hexagonal openings, as shown in Fig. 1. One of the edges of the fabric includes a straight selvage wire. Additional longitudinal reinforcing wires are included when specified.

4.2.2 *Type WW*—Fabric manufactured by welding a series of longitudinal wires to transverse wires to form a mesh with rectangular openings.

4.2.2.1 *Type WW-C*—Type WW fabric having uniform spacing of longitudinal wires, with the longitudinal wires crimped as indicated in Fig. 2.

4.2.2.2 *Type WW-N*—Type WW fabric having nonuniform spacing of longitudinal wires, by having the space between the edge wire and adjacent longitudinal wire double the spacing of the intermediate longitudinal wires. All longitudinal wires are crimped as indicated in Fig. 3.

4.2.2.3 *Type WW-S*—Type WW fabric having straight longitudinal wires (without crimping), with uniform spacing as indicated in Fig. 4.

4.3 *Design Numbers*—The design number is in the form of $A \times B \times C \times D$.

4.3.1 For Type TW fabric, where

⁴ Annual Book of ASTM Standards, Vol 02.04.

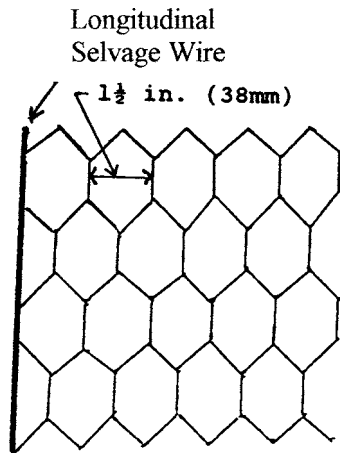


FIG. 1 Type TW—Twisted Hexagonal Mesh (Design Number $7.5 \times 0 \times 0.054 \times 0$)

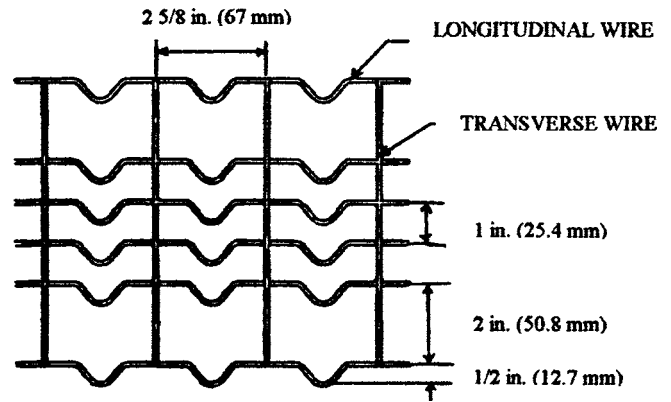


FIG. 3 Type WW-N—Crimped Welded Mesh with Non-Uniform Longitudinal Wire Spacing

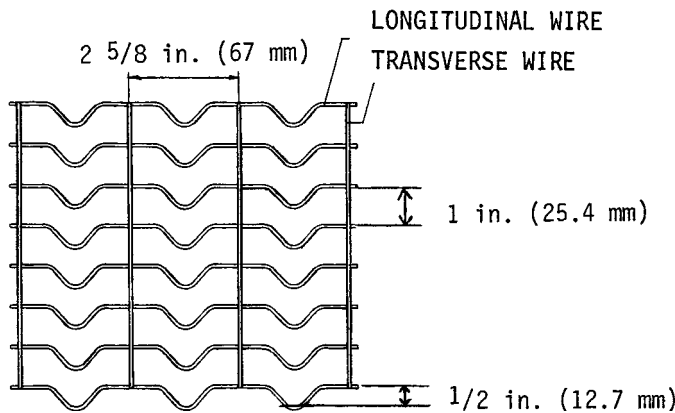


FIG. 2 Type WW-C—Crimped Welded Mesh with Uniform Longitudinal Wire Spacing

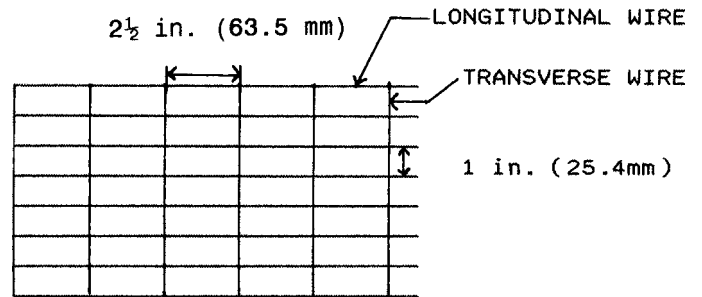


FIG. 4 Type WW-S—Welded Mesh with Straight Longitudinal Wires

4.3.2 For Type WW fabric, where

- A = nominal overall width of wire mesh fabric, in inches (millimetres),
- B = number of longitudinal wires,
- C = nominal diameter of longitudinal wires, in inches (millimetres), and
- D = nominal diameter of transverse wires, in inches (millimetres). (Example: $7.5 \times 8 \times 0.063 \times 0.063$.)

5. Ordering Information

5.1 Orders for zinc-coated steel pipe winding mesh under this specification shall include the following information, as necessary to adequately describe the desired product:

5.1.1 Name of material (steel pipe winding mesh),

- A = nominal width of wire mesh fabric, in inches (millimetres),
- B = number of straight reinforcing wires, not including the straight selvage wire,
- C = nominal diameter of wire in hexagonal mesh and straight selvage wire, in inches (millimetres), and
- D = nominal diameter of straight reinforcing wires, not including straight selvage wire, in inches (millimetres). (Example: $7.5 \times 1 \times 0.054 \times 0.048$.)