



Designation: **C847—12 C847 – 14**

Standard Specification for Metal Lath¹

This standard is issued under the fixed designation C847; 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 reappraisal. A superscript epsilon (ϵ) indicates an editorial change since the last revision or reappraisal.

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

1. Scope*

1.1 This specification covers sheet lath, expanded metal lath, diamond mesh, flat and self-furring, and rib metal lath, $\frac{1}{8}$ and $\frac{3}{8}$ in. (3.2 and 9.6 mm), all with or without backing and designed to be used as a base for gypsum or portland cement plaster.

1.2 The values stated in inch-pound units are to be regarded as standard. The values given in parentheses are mathematical conversions to SI units that are provided for information only and are not considered standard.

2. Referenced Documents

2.1 *ASTM Standards*:²

A653/A653M Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process

3. Material

3.1 Metal lath shall be fabricated from cold-rolled carbon steel sheet of commercial quality conforming to Specification **A653/A653M**. Galvanized metal lath shall have a G60 coating in accordance with Specification **A653/A653M**.

3.2 Backing shall be attached to the lath sufficiently enough to prevent accidental removal during shipping, handling, or installation. Attachment of backing shall also allow lapping of metal to metal and backing to backing, 1 in. (25.4 mm) on the ends and $\frac{1}{2}$ in. (12.7 mm) on the sides.

4. Dimensions, Mass, and Permissible Variations

4.1 *Thickness*—The nominal thickness of diamond mesh and flat rib metal lath shall be $\frac{1}{8}$ in. (3.2 mm). The nominal thickness of other rib metal lath shall be as designated, $\frac{3}{8}$ in. (9.6 mm). The nominal thickness of self-furring diamond mesh shall be $\frac{5}{16}$ in. (7.9 mm).

4.2 *Width*—The minimum width of metal lath shall be 27 in. (686 mm).

4.3 *Length*—The minimum length of metal lath shall be 97 in. (2464 mm).

4.4 *Weight*—The weight of metal lath shall be as follows:

4.4.1 *U.S. Weights:*

Type:	Weight, lb/yd ² (kg/m ²)
Diamond mesh	2.5 (1.4); 3.4 (1.8)
Flat rib	1.8 (1.0); 2.75 (1.5); 3.4 (1.8)
$\frac{3}{8}$ -in. rib	3.4 (1.8); 4.0 (2.1)

Type:	Weight, lb/yd ² (kg/m ²)
Diamond mesh	2.5 (1.4); 3.4 (1.8)
Flat rib	1.8 (1.0); 2.75 (1.5); 3.4 (1.8)
$\frac{3}{8}$ -in. rib	3.4 (1.8); 4.0 (2.1)

¹ This specification is under the jurisdiction of ASTM Committee C11 on Gypsum and Related Building Materials and Systems and is the direct responsibility of Subcommittee C11.02 on Specifications and Test Methods for Accessories and Related Products.

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

*A Summary of Changes section appears at the end of this standard

4.4.2 Canadian Weights:

Type:	—Weight, lb/yd ² (kg/m ²)
Diamond mesh	2.5 (1.4); 3.0 (1.6); 3.4 (1.8)
Flat rib	1.8 (1.0); 2.5 (1.4); 3.0 (1.6)
3/8-in. rib	3.0 (1.6); 3.5 (1.9); 4.0 (2.1)

Type:	Weight, lb/yd ² (kg/m ²)
Diamond mesh	2.5 (1.4); 3.0 (1.6); 3.4 (1.8)
Flat rib	1.8 (1.0); 2.5 (1.4); 3.0 (1.6)
3/8-in. rib	3.0 (1.6); 3.5 (1.9); 4.0 (2.1)

4.5 *Permissible Variations*—The permissible variations shall be as follows:

- 4.5.1 *Thickness*, $\pm 1/64$ in. (0.4 mm).
- 4.5.2 *Width*, $\pm 3/8$ in. (9.5 mm).
- 4.5.3 *Length*, -0 in., $+ 1 1/2$ in. (38.1 mm).
- 4.5.4 *Weight*, $\pm \pm 10$ %.

5. Finish

5.1 Metal lath shall be fabricated from hot-dipped galvanized steel.

6. Weight Test

6.1 *Significance and Use*—This test method provides a procedure for measuring the weight of a single sheet of metal lath. It shall be used to determine compliance with this specification. The degree of performance of this test method with service performance has not been determined.

6.2 *Apparatus*:

- 6.2.1 *Scale*, capable of weighing in increments of 0.1 lb (0.05 kg) or 1 oz (28 g).
- 6.2.2 *Tape Measure*, capable of measuring in increments of $1/16$ in. (1.6 mm).

6.3 *Materials shall satisfy the following*:

6.3.1 *Metal Lath*—Specification C847.

6.4 *Sampling*—One sheet shall be selected from each bundle or package, but not more than five sheets from any one shipment for testing.

6.5 *Specimen Preparation*:

6.5.1 Measure and record the width and length of each specimen.

NOTE 1—For paper-backed lath, remove the paper and glue from the lath before weighing the specimen.

6.5.2 Each specimen to be weighed shall be permitted to be folded.

6.6 *Procedure*:

- 6.6.1 Attach the scale to a suitable support and tare the scale to zero.
- 6.6.2 Attach the specimen to the scale.
- 6.6.3 Record the weight of the specimen.
- 6.6.4 Calculate the number of square yards of material present in each specimen.

NOTE 2—The number of square yards per specimen is determined by taking the area of the specimen in square inches (square mm) and dividing the area by $1296 \text{ in.}^2/\text{yd}^2$ ($995\,389 \text{ mm}^2/\text{m}^2$).

6.6.5 Calculate the weight per square yard for each specimen.

NOTE 3—The weight per square yard is determined by dividing the weight per specimen by the number of square yards of each specimen.

6.7 *Number of Tests and Retests*:

- 6.7.1 A sample consisting of five specimens of each type of lath shall be tested. If more than two specimens fail, the sample has failed to meet the requirements of this test.
- 6.7.2 If one of the five test specimens fails to meet the requirements, two more additional test specimens shall be chosen for retesting. If not more than one of the two additional test specimens fail, the sample has met the requirements of this test.
- 6.7.3 If more than one of the test specimens fails, the sample has failed to meet the requirements of the test.

6.8 *Report*—Report shall indicate the total number of specimens tested and the number of specimens meeting the requirements of this specification.

6.9 *Precision and Bias*—No statement is made about either the precision or bias of this test method since the result merely states whether or not there is conformance to the criteria for success specified in the procedure.