



Designation: C475/C475M – 17 (Reapproved 2022)

Standard Specification for Joint Compound and Joint Tape for Finishing Gypsum Board¹

This standard is issued under the fixed designation C475/C475M; 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 U.S. Department of Defense.

1. Scope

1.1 This specification covers all-purpose, taping and finishing joint compounds, paper joint tape, and glass-mesh joint tape.

1.1.1 The joint materials used in this standard are designed to be used with gypsum board installed in accordance with Specification C840.

1.2 This specification also covers the minimum requirements for an assembly of taping and all-purpose compound and joint tape.

1.3 The text of this specification 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 specification.

1.4 The values stated in either inch-pound or SI (metric) units are to be regarded separately as standard. Within the text, the SI units are shown in parentheses. The values stated in each system shall be used independent of the other. Values from the two systems shall not be combined.

1.5 *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

C11 Terminology Relating to Gypsum and Related Building

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.

Materials and Systems

C474 Test Methods for Joint Treatment Materials for Gypsum Board Construction

C840 Specification for Application and Finishing of Gypsum Board

D123 Terminology Relating to Textiles

D3882 Test Method for Bow and Skew in Woven and Knitted Fabrics

F1615 Specification for Cautionary Labeling for Five-Gallon Open-Head Plastic Containers

3. Terminology

3.1 *Definitions*—Definitions shall be in accordance with Terminology C11.

3.2 *Definitions of Terms Specific to This Standard:*

3.2.1 *glass-mesh joint-tape, n*—a strip of multidirectional glass yarn material designed to reinforce the joint between two gypsum boards.

3.2.2 *joint tape, n*—a strip of material used to conceal and reinforce the joint between two gypsum boards.

3.2.3 *joint tape, self-adhering, n*—a joint tape manufactured to adhere directly to the substrate.

3.2.3.1 *Discussion*—Tapes having this quality do not require mechanical or embedment means of attachment to the substrate.

3.2.4 *paper joint tape, n*—a strip of paper reinforcing material designed to be embedded in the joint compound and to reinforce the joint between two gypsum boards.

3.2.5 *skewness, n*—as defined in Terminology D123.

4. Physical Properties

4.1 *General*—The physical properties shall be determined in accordance with Test Methods C474, except as noted.

4.2 *Joint Compounds.*

4.2.1 *Check Cracking*—No cracks in the thinner half of the wedge and no deep fissure cracks in the thicker half of the wedge.

4.2.2 *Putrefaction*—No putrefaction in less than four days.

4.2.3 *Shrinkage*—Not more than 35 % by volume.

4.3 *Joint Tape:*

4.3.1 The following tests are required of all joint tape:

4.3.1.1 *Width*—Shall be not less than 1 $\frac{7}{8}$ in. (48 mm) nor more than 2 $\frac{1}{4}$ in. (60 mm). The width of an individual roll shall vary not more than $\pm\frac{1}{32}$ in. (1 mm).

4.3.1.2 *Thickness*—Shall be not more than 0.012 in. (0.30 mm).

4.3.1.3 *Tensile Strength*:

(1) *Type I joint tape*—Shall be not less than 22.0 lbf/in. (3.85 N/mm) in the cross direction.

(2) *Type II joint tape*—Shall be not less than 30.0 lbf/in. (5.25 N/mm) in the cross direction.

4.3.2 The following tests are required of paper joint tape:

4.3.2.1 *Dimensional Stability*—Shall expand not more than 0.4 % lengthwise and not more than 2.5 % crosswise.

4.3.3 The following test is required of glass-mesh joint tape:

4.3.3.1 *Skewness*, when tested in accordance with Test Method **D3882**, shall be not more than 8.75 %.

4.4 *Assembly of Taping or All-Purpose Compound and Paper Joint Tape*:

4.4.1 Bond between the joint tape and the joint compound shall be not less than 90 %.

4.4.2 Edge cracking shall be not more than 10 % along the edges of the tape specimen.

5. Sampling

5.1 *Sampling of Joint Compound*—At least 1 %, but not less than one package or container shall be sampled and shall be so selected as to be representative of the shipment. The material so obtained shall be thoroughly blended and divided. Provide not less than one 6-lb (2.75 kg) sample for the test.

5.2 *Sampling of Joint Tape*—At least one roll for every ten cases or a fraction thereof, but not more than ten rolls per shipment shall constitute a sample.

6. Inspection

6.1 Inspection of the joint compound and joint tape shall be agreed upon between the purchaser and the supplier as part of the purchase agreement.

7. Rejection

7.1 Rejection of joint compound and joint tape that fails to conform to requirements of this specification shall be reported to the producer or supplier promptly and in writing. The notice of rejection shall contain a statement documenting how the joint compound or joint tape has failed to conform to the requirements of this specification.

8. Certification

8.1 When specified in the purchase agreement, a producer's or supplier's report shall be furnished at the time of shipment certifying that the product is in compliance with this specification.

9. Packaging and Package Marking

9.1 Joint compound and joint tape shall be marked on each item or package with the name, brand or trademark of the manufacturer or seller, size, and volume or net weight of contents.

9.2 Joint compound packaged in open-head pails that are covered by Specification **F1615** shall be labeled in accordance with Specification **F1615**.

10. Keywords

10.1 all-purpose compound; bond; check cracking; dimensional stability; edge cracking; finishing compound; glass-mesh joint tape; joint compound; joint tape; paper joint tape; putrefaction; shrinkage; taping compound; tensile strength; topping compound

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