Designation: C901 – 18

Standard Specification for Prefabricated Masonry Panels[1]

This standard is issued under the fixed designation C901; 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 the structural design and quality control of fabrication for load-bearing and non-load-bearing prefabricated masonry panels. Methods of prefabrication, field erection, and jointing are not covered in this specification.

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.

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.

1.4 *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]

C67 Test Methods for Sampling and Testing Brick and Structural Clay Tile

C109/C109M Test Method for Compressive Strength of Hydraulic Cement Mortars (Using 2-in. or [50-mm] Cube Specimens)

C140 Test Methods for Sampling and Testing Concrete Masonry Units and Related Units

C270 Specification for Mortar for Unit Masonry

C476 Specification for Grout for Masonry

C780 Test Method for Preconstruction and Construction Evaluation of Mortars for Plain and Reinforced Unit Masonry

C1019 Test Method for Sampling and Testing Grout

C1180 Terminology of Mortar and Grout for Unit Masonry

C1232 Terminology for Masonry

C1314 Test Method for Compressive Strength of Masonry Prisms

C1357 Test Methods for Evaluating Masonry Bond Strength (Withdrawn 2016)[3]

C1717 Test Methods for Conducting Strength Tests of Masonry Wall Panels

E518 Test Methods for Flexural Bond Strength of Masonry

2.2 *Other Standards:*

TMS 402 Building Code Requirements for Masonry Structures[4]

TMS 602 Specification for Masonry Structures[4]

3. Terminology

3.1 The terms used in this specification are identified in Terminologies C1180 and C1232.

4. Materials and Manufacture

4.1 *Masonry*—Masonry units, mortar, grout, reinforcement, anchors, ties, and accessories shall conform to TMS 602.

5. Structural Design

5.1 *General*—Structural design of panels shall be performed in accordance with the provisions of the applicable local building code and the requirements of TMS 402. Structural design of panels shall consider all loading and restraint conditions from initial fabrication to in-service conditions in the completed structure, including storage, transportation, and erection. The design loads shall be of the type and magnitude required by the applicable building code. Panels and connections required to resist wind, seismic, or other dynamic loads shall be designed to resist the required positive and negative forces in all directions. The joints between dissimilar materials

[1] This specification is under the jurisdiction of ASTM Committee C15 on Manufactured Masonry Units and is the direct responsibility of Subcommittee C15.05 on Masonry Assemblies.

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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.

[3] The last approved version of this historical standard is referenced on www.astm.org.

[4] Available from The Masonry Society, 105 South Sunset Street, Suite Q, Longmont, CO 80501-6172, http://www.masonrysociety.org.

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