



Designation: C1262/C1262M – 16

Standard Test Method for Evaluating the Freeze-Thaw Durability of Dry-Cast Segmental Retaining Wall Units and Related Concrete Units¹

This standard is issued under the fixed designation C1262/C1262M; 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 test method covers the resistance to freezing and thawing of dry-cast segmental retaining wall (SRW) units (see Specification C1372) and related concrete units. Units are tested in a test solution that is either potable tap water or 3 % saline solution depending on the intended use of the units in actual service.

NOTE 1—Related concrete units include units such as hollow and solid concrete masonry units, concrete brick, and concrete roof pavers.

1.2 The values stated in either SI units or inch-pound units are to be regarded separately as standard. The values stated in each system may not be exact equivalents; therefore, each system shall be used independently of the other. Combining values from the two systems may result in non-conformance with this standard. Some values have only SI units because the inch-pound equivalents are not used in practice.

1.3 *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.*

2. Referenced Documents

2.1 ASTM Standards:²

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

C1093 Practice for Accreditation of Testing Agencies for Masonry

C1232 Terminology of Masonry

C1372 Specification for Dry-Cast Segmental Retaining Wall Units

¹ This test method is under the jurisdiction of ASTM Committee C15 on Manufactured Masonry Units and is the direct responsibility of Subcommittee C15.03 on Concrete Masonry Units and Related Units.

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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. Terminology

3.1 Terminology defined in Terminology C1232 shall apply for this test method.

4. Significance and Use

4.1 The procedure described in this test method is intended to determine the effects of freezing and thawing on SRW and related units in the presence of potable tap water or saline solution.

4.2 The procedure is not intended to provide a quantitative measure to determine an expected length of service for a specific type of concrete unit.

NOTE 2—The testing laboratory performing this test method should be evaluated in accordance with Practice C1093.

5. Apparatus

5.1 *Freeze-Thaw Chamber*—Use a chamber that has:

5.1.1 Forced air circulation,

5.1.2 A programmable air-temperature controller capable of automatically performing at least two freezing and thawing cycles per 24-h period during testing,

5.1.3 A temperature range of at least –10 to 100°F [–25 to 40°C], and

5.1.4 The capability of maintaining the air temperature throughout the chamber within the specified temperature ranges for the duration of the test cycle.

5.2 *Containers*—Use containers that are:

5.2.1 Made of non-rigid plastic,

5.2.2 Of sufficient size to contain each test specimen and specimen supports as illustrated in Fig. 1,

5.2.3 Of sufficient size to provide a minimum of 1/8 in. [3 mm] and a maximum of 1 1/2 in. [40 mm] of test solution surrounding the sides of the specimen,

5.2.4 Supplied with a tightly-fitting lid to reduce evaporation, and

5.2.5 Flat enough so that the specimen will not deviate from level by more than 1/16 in. [2 mm] from one end of the specimen to the opposite end when placed on the support rods.

5.3 *Specimen Supports*—Support the specimen above the container bottom. Use supports that are:

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