



Designation: D6532 – 00 (Reapproved 2022)

Standard Test Method for Evaluation of the Effect of Clear Water Repellent Treatments on Water Absorption of Hydraulic Cement Mortar Specimens¹

This standard is issued under the fixed designation D6532; 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 evaluates the effectiveness of clear water repellents on hydraulic cement mortar specimens based on water absorption after a water soak.

1.2 The values stated in SI units are to be regarded as the standard. The values given in parentheses are for information only.

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, health, and environmental practices and determine the applicability of regulatory limitations prior to use.*

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

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

D1475 Test Method for Density of Liquid Coatings, Inks, and Related Products

D3924 Specification for Standard Environment for Conditioning and Testing Paint, Varnish, Lacquer, and Related Materials

¹ This test method is under the jurisdiction of ASTM Committee D01 on Paint and Related Coatings, Materials, and Applications and is the direct responsibility of Subcommittee D01.47 on Concrete, Stone and Masonry Treatments.

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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.

E145 Specification for Gravity-Convection and Forced-Ventilation Ovens

3. Terminology

3.1 *Definitions of Terms Specific to This Standard:*

3.1.1 *clear water repellent, n*—a coating formulated for the purpose of protecting porous substrates by reducing the penetration of liquid water.

4. Summary of Test Method

4.1 The masonry unit is immersed in a clear water repellent, removed and allowed to cure at ambient condition for 7 days. Any deviations should be noted in 10.1.2. After cure, the masonry unit is weighed and placed in water to a depth of 6.3 mm (¼ in.) for 3 days. After the immersion period, the masonry unit is removed and reweighed. The water repellency value of the treatment is then calculated using a comparison to untreated control specimens.

5. Significance and Use

5.1 Siliceous alkaline substrates are subject to water damage that may result in deterioration. Water repellents can provide protection of siliceous alkaline substrates exposed to water. This test method is used to evaluate the efficacy of clear water repellents on alkaline substrates.

6. Apparatus

6.1 *Forced Draft Oven*, Type 1B, in accordance with the Type Section of Specification E145.

6.2 *Balance*, having a capacity of not less than 400 g, and sensitivity of 0.01 g.

6.3 *Reservoir Water Pan*, capable of maintaining the water level at 6.3 mm (¼ in.) in depth with noncorroding rods for the specimens to sit off the bottom.

6.4 *Stiff Bristle Brush*, to brush the masonry units.

6.5 *Pressurized Air Source*, to blow residual material off the brushed masonry units.