



Standard Test Methods for Sampling and Testing Non-Asbestos Fiber-Cement Flat Sheet, Roofing and Siding Shingles, and Clapboards¹

This standard is issued under the fixed designation C1185; 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 These test methods cover sampling and testing of non-asbestos fiber-cement flat sheets, roofing shingles, siding shingles, and clapboards. These products may be smooth or surface textured. These test methods are utilized in evaluating products cited in Specifications **C1186**, **C1225**, **C1288**, and **C1325**.

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 *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

- C20** Test Methods for Apparent Porosity, Water Absorption, Apparent Specific Gravity, and Bulk Density of Burned Refractory Brick and Shapes by Boiling Water
- C1154** Terminology for Non-Asbestos Fiber-Reinforced Cement Products
- C1186** Specification for Flat Fiber-Cement Sheets
- C1225** Specification for Fiber-Cement Roofing Shingles, Shakes, and Slates
- C1288** Specification for Discrete Non-Asbestos Fiber-Cement Interior Substrate Sheets
- C1325** Specification for Non-Asbestos Fiber-Mat Reinforced Cementitious Backer Units

¹ These test methods are under the jurisdiction of ASTM Committee **C17** on Fiber-Reinforced Cement Products and are the direct responsibility of Subcommittee **C17.02** on Non-Asbestos Fiber Cement 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.

2.2 ISO Standards:

- ISO 390** Product in Fiber Reinforced Cement Sampling and Inspection³
- ISO 2859-0** Sampling Procedures for Inspection by Attributes—Part 0: Introduction to the ISO 2859 Attribute Sampling System³
- ISO 2859-1** Sampling Procedures for Inspection by Attributes—Part 1: Sampling Schemes Indexed by Acceptance Quality Limit (AQL) for Lot-by-Lot Inspection³
- ISO 3951** Sampling Procedures and Charts for Inspection by Variables for Percent Nonconforming³

3. Terminology

3.1 Definitions:

3.1.1 Refer to Terminology **C1154**.

3.1.2 *density*—the mass per unit volume expressed in pounds per cubic foot (lb/ft³) or kilograms per cubic metre (kg/m³).

3.1.3 *flexural strength*—the average flexural strength is the average of two perpendicular breaks expressed in pound-force per square inch (megapascals) as calculated from the average breaking load of wet or equilibrium test specimens, loaded as simple beams, with the load applied at the center.

3.1.4 *heat-rain sheets*—fixed to a building frame in accordance with the manufacturer's recommended installation practices. The sheeted frame is then subjected to alternate wetting and heating cycles and any structural alteration of the sheet caused by the test is reported.

3.2 Definitions of Terms Specific to This Standard:

3.2.1 *dimensions*—for the purpose of these test methods, the length, width and thickness of fiber-cement flat sheets, roofing shingles, siding shingles, and clapboard are measured under specified conditions.

3.2.2 *moisture content*—for the purpose of these test methods, the percentage of moisture content of the fiber-cement product when conditioned at $50 \pm 5\%$ relative humidity and a temperature of $73 \pm 4^\circ\text{F}$ ($23 \pm 2^\circ\text{C}$).

³ Available from American National Standards Institute (ANSI), 25 W. 43rd St., 4th Floor, New York, NY 10036, <http://www.ansi.org>.