



Designation: C1225 – 23

# Standard Specification for Fiber-Cement Roofing Shingles, Shakes, and Slates<sup>1</sup>

This standard is issued under the fixed designation C1225; 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 ( $\epsilon$ ) indicates an editorial change since the last revision or reapproval.

## 1. Scope

1.1 This specification covers fiber-cement shingles, shakes, and slates (roofing products) of nominally uniform thickness (non-tapered) and texture, including accessories designed to provide the weather-exposed surfaces on roofs of buildings.

1.2 This specification is not applicable to non-asbestos fiber-cement roofing shakes, shingles, and slates with designed varying profiles and thicknesses (Specification C1530), particle board (Terminology D1554), or cement-bonded particleboards (Specification BS 5669: Part 4) and (ISO 8335).

1.3 This specification does not include details of product installation or installed system performance. Refer to the manufacturer's installation literature for proper installation instructions, to Specification C1459 for roofing systems performance, and to Test Methods E108 for levels of fire resistance.

1.4 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.

1.5 *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:*<sup>2</sup>

C1154 Terminology for Non-Asbestos Fiber-Reinforced Cement Products

C1185 Test Methods for Sampling and Testing Non-Asbestos Fiber-Cement Flat Sheet, Roofing and Siding

<sup>1</sup> This specification is under the jurisdiction of ASTM Committee C17 on Fiber-Reinforced Cement Products and is the direct responsibility of Subcommittee C17.02 on Fiber-Cement Products.

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<sup>2</sup> 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.

Shingles, and Clapboards

C1459 Specification for Performance of Non-Asbestos Fiber-Reinforced Cement Shake, Shingle, and Slate Roofing Systems

C1530 Specification for Non-Asbestos Fiber-Cement Roofing Shakes, Shingles, and Slates with Designed Varying Profiles and Thicknesses

D1554 Terminology Relating to Wood-Base Fiber and Particle Panel Materials

E108 Test Methods for Fire Tests of Roof Coverings

2.2 *British Standards:*<sup>3</sup>

BS 5669: Specification for cement bonded particleboard

2.3 *International Standards:*<sup>3</sup>

ISO 8335 Cement-bonded particleboards—Boards of Portland or equivalent cement reinforced with fibrous wood particles<sup>3</sup>

## 3. Terminology

3.1 *Definitions*—Refer to Terminology C1154.

## 4. Manufacture and Composition

4.1 *Manufacture*—These products may be formed either with or without pressure and cured, either under natural or accelerated conditions, to meet the physical requirements of this specification.

4.2 *Composition*—This specification is applicable to fiber-cement roofing products consisting essentially of an inorganic hydraulic binder or a calcium silicate binder formed by the chemical reaction of a siliceous material and a calcareous material reinforced by organic fibers, inorganic fibers, or both. Process aids, fillers, and pigments which are compatible with fiber-cement may be added.

## 5. Mechanical and Physical Properties

5.1 Mechanical and physical properties shall be determined on uncoated products wherever practical. Where products are supplied coated, this material shall also be tested with the results identified as applying to coated material. Failure of the coating as a consequence of the mechanical testing shall not

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