



## Standard Specification for Non-Asbestos Fiber-Cement Roofing Shakes, Shingles, and Slates with Designed Varying Profiles and Thicknesses<sup>1</sup>

This standard is issued under the fixed designation C 1530; 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 specification covers non-asbestos fiber-cement roofing shakes, shingles, and slates that are of designed varying profiles and thicknesses manufactured to provide the weather-exposed surfaces on roofs of buildings.

1.2 The values stated are in SI units and are to be regarded as the standard. The values given in parenthesis (inch-pound units) are provided for information only.

1.3 This specification does not include details of product installation or system performance. Refer to the manufacturer's installation literature for proper installation instructions and to Specification C 1459 for roofing systems performance.

1.4 This specification is not applicable to asbestos-cement or fiber-cement products as specified in Specifications C 222 and C 1225.

1.5 *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 requirements prior to use.*

### 2. Referenced Documents

#### 2.1 ASTM Standards:

C 222 Specification for Asbestos-Cement Roofing Shingles<sup>2</sup>

C 1154 Terminology for Non-Asbestos Fiber-Reinforced Cement Products<sup>2</sup>

C 1185 Test Methods for Sampling and Testing Non-Asbestos Fiber-Cement Flat Sheet, Roofing, and Siding Shingles, and Clapboards<sup>2</sup>

C 1225 Specification for Non-Asbestos Fiber-Cement Roofing Shingles, Shakes, and Slates<sup>2</sup>

C 1459 Specification for Performance of Non-Asbestos Fiber-Reinforced Cement Shake, Shingle, and Slate Roofing Systems<sup>2</sup>

D 3359 Test Methods for Measuring Adhesion by Tape Test<sup>3</sup>

E 284 Terminology of Appearance<sup>3</sup>

G 152 Practice for Operating Open Flame Carbon Arc Light Apparatus for Exposure of Nonmetallic Materials<sup>4</sup>

G 153 Practice for Operating Enclosed Carbon Arc Light Apparatus for Exposure of Nonmetallic Materials<sup>4</sup>

G 155 Practice for Operating Xenon Arc Light Apparatus for Exposure of Nonmetallic Materials<sup>4</sup>

### 3. Terminology

3.1 *Definitions*—Refer to Terminology C 1154.

3.2 *Definitions of Terms Specific to This Standard:*

3.2.1 *breaking load, n*—the value of perpendicular force expressed in newtons (pound-force), as calculated from the breaking load of a test specimen, loaded as a simple beam, with the load applied to the center.

### 4. Manufacture and Composition

4.1 *Manufacture*—These products shall 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 of an inorganic binder (for example, Portland cement) reinforced by discrete non-asbestos fibers.

NOTE 1—Process aids, fillers, mineral aggregates, and pigments are permitted.

### 5. Mechanical and Physical Properties

5.1 Mechanical and physical properties, as defined in Section 9, shall be determined on uncoated and unsealed specimens, unless the coating is an integral part of the product. Where products are tested coated or sealed, the results shall be identified as pertaining to coated material. Coating surface changes as a consequence of mechanical testing shall not

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<sup>2</sup> *Annual Book of ASTM Standards*, Vol 04.05.

<sup>3</sup> *Annual Book of ASTM Standards*, Vol 06.01.

<sup>4</sup> *Annual Book of ASTM Standards*, Vol 14.04.