



Standard Specification for Concrete Roof Tile¹

This standard is issued under the fixed designation C1492; 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 concrete tiles intended for the use as roof covering where durability and appearance are required to provide a weather-resistant surface of specified design.

1.2 Tiles are manufactured from portland cement, water, and mineral aggregates with or without the inclusion of other materials.

1.3 Tiles are shaped during manufacturing by molding, pressing, or extrusion. The shaping method can be used to describe the tile.

1.4 Other constituents, such as chemical and mineral admixtures established as suitable for use in concrete, shall conform to ASTM standard specifications where applicable, or shall be shown by tests or experience not to be detrimental to the durability of concrete.

1.5 Tiles are generally planar or undulating rectangular shapes available in a variety of cross-sectional areas profiles, shapes, sizes, surface textures, and colors.

NOTE 1—Concrete roof tiles covered by this specification are made from lightweight or normal weight aggregates, or both.

NOTE 2—When particular features are desired, such as color, surface texture for appearance, or other special features, such properties should be specified by the purchaser. However, the local sellers should be consulted as to the availability of concrete roof tile having a desired feature.

1.6 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.

2. Referenced Documents

2.1 ASTM Standards:²

C33 Specification for Concrete Aggregates

¹ This specification is under the jurisdiction of ASTM Committee C15 on Manufactured Masonry Units and is the direct responsibility of Subcommittee C15.06 on Roofing Tile.

Current edition approved Dec. 1, 2016. Published December 2016. Originally published in 2001. Last previous edition approved in 2009 as C1492–01(2009). DOI: 10.1520/C1492-03R16.

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.

C67 Test Methods for Sampling and Testing Brick and Structural Clay Tile
C90 Specification for Loadbearing Concrete Masonry Units
C140 Test Methods for Sampling and Testing Concrete Masonry Units and Related Units
C150 Specification for Portland Cement
C260 Specification for Air-Entraining Admixtures for Concrete
C331 Specification for Lightweight Aggregates for Concrete Masonry Units
C494/C494M Specification for Chemical Admixtures for Concrete
C595 Specification for Blended Hydraulic Cements
C618 Specification for Coal Fly Ash and Raw or Calcined Natural Pozzolan for Use in Concrete
C979 Specification for Pigments for Integrally Colored Concrete
C989 Specification for Slag Cement for Use in Concrete and Mortars
C1157 Performance Specification for Hydraulic Cement

3. Terminology

3.1 *Definitions*—The following terms are used in connection with concrete roof tiles:

3.2 *batten lugs*—protrusions on the underside of the tile designed to engage over the upper edge of tiling battens.

3.3 *head lap*—distance of overlap measured from the uppermost course to the point that it laps over the undermost course.

3.4 *high profile tile*—tile with a rise to width ratio greater than 1:5.

3.5 *interlocking tile*—tiles with a system of ribs or grooves enabling the lateral joining of adjacent tiles in the same horizontal row, with the overlapping lock covering the underlapping lock.

3.6 *length*—maximum overall dimension of the tile measured parallel to the water course.

3.7 *low profile tile*—tile with a rise equal to or less than 1/2 in.

3.8 *medium profile tile*—tile with a rise greater than 1/2 in. and a rise-to-width ratio of less than or equal to 1:5.