



Designation: C1527 – 09

## Standard Specification for Travertine Dimension Stone<sup>1</sup>

This standard is issued under the fixed designation C1527; 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 the material characteristics, physical requirements, and sampling appropriate to the selection of travertine for general building and structural purposes.

1.2 Dimension travertine shall include stone that is sawed, cut, split, or otherwise finished or shaped and shall specifically exclude molded, cast, or otherwise artificially aggregated units composed of fragments, and also crushed and broken stone.

1.3 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*:<sup>2</sup>

C97 Test Methods for Absorption and Bulk Specific Gravity of Dimension Stone

C99 Test Method for Modulus of Rupture of Dimension Stone

C119 Terminology Relating to Dimension Stone

C170 Test Method for Compressive Strength of Dimension Stone

C241 Test Method for Abrasion Resistance of Stone Subjected to Foot Traffic

C880 Test Method for Flexural Strength of Dimension Stone

C1353 Test Method for Abrasion Resistance of Dimension Stone Subjected to Foot Traffic Using a Rotary Platform,

<sup>1</sup> This specification is under the jurisdiction of ASTM Committee C18 on Dimension Stone and is the direct responsibility of Subcommittee C18.03 on Material Specifications.

Current edition approved April 1, 2009. Published April 2009. Originally approved in 2002. Last previous edition approved in 2003 as C1527-03. DOI: 10.1520/C1527-09.

<sup>2</sup> For referenced ASTM standards, visit the ASTM website, [www.astm.org](http://www.astm.org), or contact ASTM Customer Service at [service@astm.org](mailto:service@astm.org). For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

### Double-Head Abraser

### 3. Terminology

3.1 All definitions are in accordance with Terminology C119.

3.2 *Definitions*:

3.2.1 *fleuri-cut (cross-cut)*, *adj*—describes stone that is cut parallel to the natural veining.

3.2.2 *vein-cut*, *adj*—describes stone that is cut perpendicular to the natural veining.

### 4. Physical Properties

4.1 Travertine supplied under this specification shall conform to the physical requirements prescribed in Table 1.

4.2 Travertine shall be free of minerals that may cause objectionable staining under normal environments of use.

4.3 Voids in travertine are a natural characteristic of the material and shall be considered in assessing the permissible natural variations suitable for a particular application.

4.3.1 Some travertines may not be suitable for exterior use in areas subject to frequent freeze-thaw cycles.

4.3.2 Travertine that is fleuri-cut (cross-cut) rather than vein-cut can be expected to experience certain problems, because some areas of the exposed surface will consist of only a thin layer of stone that covers a void in the stone.

4.4 The desired color and texture, with their permissible natural variations in material characteristics for material to be produced for the project, shall be established by control samples. Representative samples shall be selected prior to production by viewing a sufficient number of samples that show the complete range of variations in color and texture of the travertine specified.

### 5. Sampling

5.1 Samples, if required, for testing to determine the characteristics and physical properties shall be representative of the travertine to be used.