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Standard Specification for Travertine Dimension Stone[1]

This standard is issued under the fixed designation C1527/C1527M; 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 the material characteristics, physical requirements, and sampling appropriate to the selection of travertine for general building and structural purposes. Refer to Guides C1242 and C1528 for the appropriate selection and use of travertine dimension stone.

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 either SI units or inch-pound units are to be regarded separately as standard. The values stated in each system may not be exact equivalents; therefore, each system shall be used independently of the other. Combining values from the two systems may result in non-conformance with the standard.

1.4 *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:*[2]

C97/C97M Test Methods for Absorption and Bulk Specific Gravity of Dimension Stone

C119 Terminology Relating to Dimension Stone

C170/C170M Test Method for Compressive Strength of Dimension Stone

C241/C241M Test Method for Abrasion Resistance of Stone Subjected to Foot Traffic

C880/C880M Test Method for Flexural Strength of Dimension Stone

C1242 Guide for Selection, Design, and Installation of Dimension Stone Attachment Systems

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

C1528 Guide for Selection of Dimension Stone

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.

[1] 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.

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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.