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Standard Specification for Marble Dimension Stone¹

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1. Scope

1.1 This specification covers the material characteristics, physical requirements, and sampling appropriate to the selection of marble for general building and structural purposes. Refer to Guides C1242 and C1528 for the appropriate selection and use of marble dimension stone.

1.2 Dimension marble shall include stone that is sawed, cut, split, or otherwise finished or shaped into blocks, slabs or tiles, and shall specifically exclude molded, cast and 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

C99/C99M Test Method for Modulus of Rupture 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 *Definitions*—All definitions are in accordance with Terminology C119.

4. Classification

4.1 Dimension marble is classified as follows:

4.1.1 *I Calcite.*

4.1.2 *II Dolomite.*

NOTE 1—See Terminology C119 for definitions of calcite and dolomite.

5. Soundness

5.1 Marbles are further classified into four “Soundness” groups: A, B, C, and D. Classifications are based on the properties encountered in fabrication and has no reference whatsoever to comparative merit or value. Marble is classified by its producer.

5.2 The Soundness classifications indicate what repairs may be necessary prior to or during installation, based on standard trade practices.

5.3 The groupings A, B, C, and D, should be taken into account when specifying marble, for all marbles are not suitable for all building applications. This is particularly true of the comparatively fragile marbles classified under Soundness Groups C and D, which may need additional fabrication before or during installation. Only Soundness Group A marble should be used for exterior installations, or any applications that require the stone panel to resist lateral loads or to bear weight without reinforcement.

5.3.1 The four groups are:

Group A—Sound marbles with uniform and favorable working qualities; containing no geological flaws, voids, spalls, cracks, open seams, pits or other defects.

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.