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# Standard Specification for Concrete Grid Paving Units[1]

This standard is issued under the fixed designation C1319; 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 requirements for concrete grid paving units for vehicular trafficways, parking areas, soil stabilization, and revetments.

NOTE 1—When particular features are desired, such as weight classification, higher compressive strength, surface texture, finish, color, or other special features, such properties should be specified separately by the purchaser. However, local sellers should be consulted as to availability of units having the desired features.

1.2 The text of this standard references notes and footnotes which provide explanatory material. These notes and footnotes (excluding those in tables and figures) shall not be considered as requirements of the standard.

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:*[2]

C33 Specification for Concrete Aggregates
C140 Test Methods for Sampling and Testing Concrete Masonry Units and Related Units
C150 Specification for Portland Cement
C331 Specification for Lightweight Aggregates for Concrete Masonry Units
C595 Specification for Blended Hydraulic Cements
C618 Specification for Coal Fly Ash and Raw or Calcined Natural Pozzolan for Use in Concrete
C989 Specification for Slag Cement for Use in Concrete and Mortars
C979 Specification for Pigments for Integrally Colored Concrete
C1157 Performance Specification for Hydraulic Cement
C1232 Terminology of Masonry
C1240 Specification for Silica Fume Used in Cementitious Mixtures

## 3. Terminology

3.1 Terminology defined in Terminology C1232 shall apply for this specification.

## 4. Materials

4.1 *Cementitious Materials*—Materials shall conform to the following applicable ASTM specifications:

4.1.1 *Portland Cements*—Specification C150.

4.1.2 *Modified Portland Cement*—Portland cement conforming to Specification C150, modified as follows:

4.1.2.1 Calcium carbonate, with a minimum 85 % $CaCO_3$ content, shall be permitted to be interground with the cement, provided the requirements of Specification C150 as modified are met: limitation on insoluble residue is 1.5 % and limitation on loss on ignition is 7 %.

4.1.3 *Blended Hydraulic Cements*—Specification C595.

4.1.4 *Hydraulic Cement*—Specification C1157.

4.1.5 *Pozzolans*—Specification C618.

4.1.6 *Blast Furnace Slag Cements*—Specification C989.

4.1.7 *Silica Fume*—Specification C1240.

4.2 *Aggregates*—Aggregates shall conform to one of the following ASTM specifications, except that grading requirements shall not necessarily apply:

4.2.1 *Normal Weight*—Specification C33.

4.2.2 *Lightweight*—Specification C331.

4.3 *Pigments for Integrally Colored Concrete*—Specification C979.

4.4 *Other Constituents*—Air-entraining agents, integral water repellents, and other constituents, shall be previously established as suitable for use in concrete grid paving units and shall conform to applicable ASTM standards, or they shall be shown by test or experience satisfactory to the specifier and not to be detrimental to the durability of the concrete grid paving unit or any material customarily used in grid paving construction.

## 5. Physical Requirements

5.1 Units shall have maximum length and width dimensions of 24 in. by 24 in. (610 mm by 610 mm).

[1] This specification is under the jurisdiction of ASTM Committee C15 on Manufactured Masonry Units and is the direct responsibility of Subcommittee C15.03 on Concrete Masonry Units and Related Units.

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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.

***A Summary of Changes section appears at the end of this standard**