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AMERICAN SOCIETY FOR TESTING AND MATERIALS
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Standard Specification for Concrete Grid Paving Units[1]

This standard is issued under the fixed designation C 1319; 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. Maximum dimensions are 24 long by 24 in. wide (610 by 610 mm), with a minimum nominal thickness of 3⅛ in. (80 mm).

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 the standard. The values given in parentheses are for information only.

2. Referenced Documents

2.1 *ASTM Standards:*

C 33 Specification for Concrete Aggregates[2]

C 140 Test Methods for Sampling and Testing Concrete Masonry Units and Related Units[3]

C 150 Specification for Portland Cement[4]

C 331 Specification for Lightweight Aggregates for Concrete Masonry Units[2]

C 595 Specification for Blended Hydraulic Cements[4]

C 618 Specification for Coal Fly Ash and Raw or Calcined Natural Pozzolan for Use as a Mineral Admixture in Portland Cement Concrete[2]

C 989 Specification for Ground Granulated Blast-Furnace Slag for Use in Concrete and Mortars[2]

C 1157 Performance Specification for Blended Hydraulic Cement[4]

C 1209 Terminology of Concrete Masonry Units and Related Units[3]

C 1232 Terminology of Masonry[3]

3. Terminology

3.1 Terminology defined in Terminology C 1209 and Terminology C 1232 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 C 150.

4.1.2 *Modified Portland Cement*—Portland cement conforming to Specification C 150, 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 C 150 as modified are met: limitation on insoluble residue is 1.5 % and limitation on loss on ignition is 7 %.

4.1.3 *Blended Cements*— Specification C 595M or C 1157M.

4.1.4 *Pozzolans*—Specification C 618.

4.1.5 *Blast Furnace Slag Cements*—Specification C 989.

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 C 33.

4.2.2 *Lightweight*— Specification C 331.

4.3 *Other Constituents*—Air-entraining agents, coloring pigments, integral water repellents, and finely ground silica, 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 At the time of delivery to the work site, the units shall conform to the physical requirements prescribed in Table 1.

5.2 *Durability*—Durability shall be demonstrated by proven field performance satisfactory to the specifier that the grid paver units have adequate durability for the intended use.

5.2.1 *Proven Field Performance*—Satisfactory field performance is demonstrated when units similar in composition and made with the same manufacturing process as those to be supplied to the purchaser, maintain the physical requirements

[1] This specification is under the jurisdiction of ASTM Committee C-15 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] *Annual Book of ASTM Standards*, Vol 04.02.

[3] *Annual Book of ASTM Standards*, Vol 04.05.

[4] *Annual Book of ASTM Standards*, Vol 04.01.