



Designation: C 530 – 99

Standard Specification for Structural Clay Nonloadbearing Screen Tile¹

This standard is issued under the fixed designation C 530; 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 unglazed, structural clay, non-loadbearing screen tile.

1.2 The property requirements of this standard apply at the time of purchase. The use of results from testing of tile extracted from masonry structures for determining conformance or nonconformance to the property requirements (Section 5) of this standard is beyond the scope of this standard.

1.3 Tile covered by this standard are manufactured from clay, shale, or similar naturally occurring substances and subjected to a heat treatment at elevated temperatures (firing). The heat treatment must develop sufficient fired bond between the particulate constituents to provide the strength and durability requirements of this specification. (See *firing* and *fired bond* in Terminology C 43).

1.4 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.

2. Referenced Documents

2.1 ASTM Standards:

- C 43 Terminology of Structural Clay Products²
- C 67 Test Methods for Sampling and Testing Brick and Structural Clay Tile²

3. Grades

3.1 Three grades of screen tile, based on relative durability, are covered as follows:

NOTE 1—Screen walls present many more exposed surfaces than other brick or tile walls, the question of durability and selection of grade may be more critical in the screen walls. For this reason, these requirements are more conservative than for brick.

3.1.1 *Grade SE*—Screen tile exhibiting a uniformly high resistance to disintegration by weathering or by freezing or thawing in the presence of moisture.

3.1.2 *Grade ME*—Screen tile exhibiting a moderate and somewhat nonuniform resistance to weathering. Grade ME tile exhibit good durability in areas of mild to moderate exposure but may not be adequate for severe exposures.

3.1.3 *Grade NE*—Screen tile for interior use (no exposure to rain or freezing).

3.2 When the grade is not specified, the requirements for Grade ME shall govern.

3.3 Grade SE tile may be accepted in lieu of Grades ME or NE. Grade ME tile may be accepted in lieu of Grade NE.

4. Types

4.1 Two types of screen tile, based on dimensional tolerances, are covered as follows:

4.1.1 *Type STX*—Screen tile having a high degree of mechanical perfection and minimum size variation.

4.1.2 *Type STA*—Screen tile exhibiting characteristic architectural effects resulting from a larger degree of size variation than obtainable with Type STX.

4.2 When type is not specified, the requirements for Type STA shall govern.

5. Physical Properties

5.1 *Durability*—Screen tile shall meet the properties prescribed in Table 1 for resistance to absorption.

6. Dimensions and Permissible Variations

6.1 The dimensions of screen tile units shall be specified by the purchaser.

NOTE 2—Since screen tile are available in numerous sizes and shapes, the purchaser must specify these items. All sizes and shapes are not necessarily available in all parts of the United States. Therefore, the specifier should ascertain local availability before specifying a particular unit size or pattern.

6.2 No screen tile shall have greater dimensional variation than that permitted in Table 2.

7. Finish

7.1 Tile surfaces shall be smooth, scored, combed, or roughened as specified by the purchaser.

¹ This specification is under the jurisdiction of ASTM Committee C-15 on Manufactured Masonry Units and is the direct responsibility of Subcommittee C15.02 on Brick and Structural Clay Tile.

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² *Annual Book of ASTM Standards*, Vol 04.05.