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ASTM SPECIFICATIONS FOR STRUCTURAL CLAY PRODUCTS

When ASTM specifications are included by reference in project specifications, the full designation, including the year of approval, should be given.

Solid Masonry Units: ASTM Specifications C 216, C 62, and C 126 cover solid building brick, facing brick and ceramic glazed units made from clay and/or shale. Under these specifications, a solid masonry unit may be cored not in excess of 25 percent; consequently, the term "solid brick" is not confined to those units which have no cores, unless so stated in the project specifications.

Hollow Masonry Units: ASTM Specification C 652 covers hollow building brick, facing brick or hollow masonry units made from clay, shale, fire clay or mixtures thereof, and fired. The term "hollow" in this specification is defined to mean any unit cored in excess of 25 percent, but not more than 40 percent in every plane parallel to the bearing surface.

Supplementary Requirements: ASTM specifications for brick and tile do not fix the size, color or texture of the units. They do, however, include requirements for several grades and types of products, and some of them contain optional requirements which are applicable to specific projects, if so specified. When ASTM specifications are included in project specifications by reference, it is essential that they be supplemented with project requirements covering size, color, grade, type and responsibility for testing.

Size: It is recommended that the specified size be the manufactured size. Individual unit dimensions may vary from the specified or manufactured size by the allowable tolerances included in the appropriate ASTM specifications for the particular type or grade. Specifying nominal sizes of clay masonry units is not recommended, due to the ambiguity of the term "nominal". In some fields, it is understood to mean approximate and actual dimensions may vary from the nominal only by permissible variations in dimensions included in the specifications. In modular design, the nominal dimension of a masonry unit is understood to mean the specified or manufactured dimension, plus the thickness of the mortar joint with which the unit is designed to be laid.

Color and Texture: ASTM specifications for brick and structural clay facing tile provide that texture and color shall conform to an approved sample showing the full range of color and texture that will be acceptable. The number of units required in the sample should be stated in the project specifications and will depend upon the range of color and texture. In general, it will be from three to five.

Grade and Type: Most ASTM specifications for brick or structural clay tile cover two or more grades, and specifications for facing brick, hollow brick and ceramic glazed structural facing tile include requirements for two or more types. Specifications for structural clay facing tile cover two types and two classes. When these specifications are included in the project specifications by reference, it is essential that the grade and type or type and class of product required be specified.

Cell Arrangement: Structural clay tile are produced with either vertical cells or horizontal cells. Furring tile, nominal thickness 2", in ceramic glaze often referred to as "soaps", are produced with either solid backs or open (ribbed) backs. If either vertical-cell, horizontal-cell, or solid back units are required, this should be stated in the project specifications. Product specifications make the selection optional with the supplier.