



Gary Porter, Engineering & Technical Services for the Masonry Advisory Council is called upon with questions about construction concerns and for masonry advice from a variety of Architects, Engineers, Contractors, Developers and Distributor sources. He is dedicated to ongoing education of masonry and shares helpful tips from his professional experience that may be beneficial to you.

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A Specification for Facing Brick

Over many years the masonry industry with the collaboration of the American Society of Testing and Materials, (ASTM), *an international standards organization that develops and publishes voluntary consensus technical standards for a wide range of materials*, has developed a standard called ASTM C216, Standard Specification for Facing Brick (Solid Masonry Units Made from Clay or Shale). This specification offers a guideline for evaluating brick and establishes the specification, a kind of setting the bar, insuring a quality product.

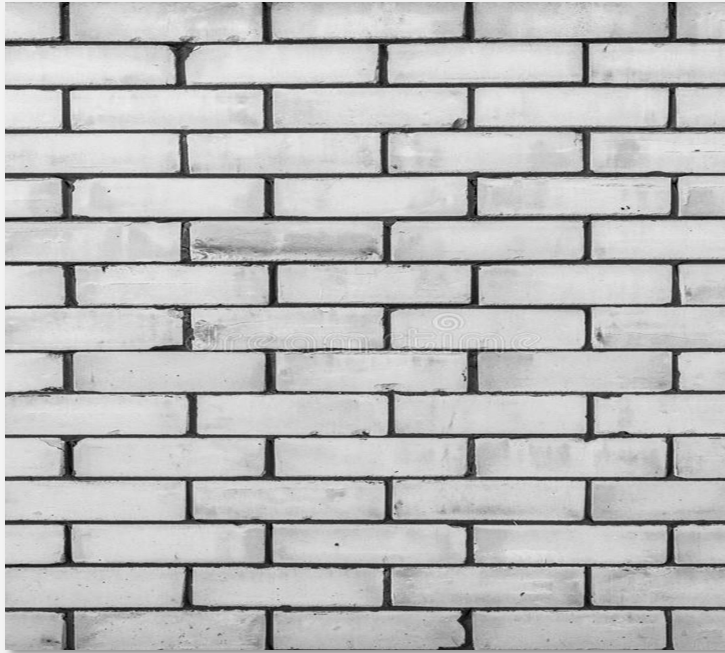
The ASTM C216 specification classifies all brick that are ceramic products made from clay, shale or naturally occurring earth substances into three **types** of brick in each of two **grades**. The two grades are *Grade SW (Severe Weathering)* which are brick that will be more resilient to repeated freezing and thawing cycles and *Grade MW (Moderate Weathering)* brick that are intended to not go through a lot of freezing and thawing cycles. The *types* of brick are FBS, brick used for general use. FBX, brick for general use where a higher degree of precision and more precise size and dimensioning are required. Brick type FBA are brick that have more variation in size and texture to produce greater architectural effects.



One technical call item that occasionally comes up in the masonry industry is dealing with chipped brick. Architects and owners do not want any chips in the finished product. Can't blame them for that! Most masons are conscious of this and do not purposely install chipped brick. If chips are encountered while installing, they either put them where they can be repurposed for cuts or they use them in inconspicuous places, like the top of the wall, where sheet metal coping might cover the brick. It is possible for some brick to become damaged in shipping or handling prior to being installed. ASTM C216 addresses the limitations regarding chipped brick in a section called **Finish and Appearance**.

A Specification for Facing Brick (cont.)

The **Finish and Appearance** section of this specification explains that some chips in brick are allowed. The specification, through the use of several tables indicates by *type of brick* what percentage of chips are allowed. With some minor chips allowed, the face and ends of the brick are to be free of cracks or other imperfections. There is a requirement for the distance the wall can be viewed and evaluated from and the lighting that is allowable to view the brick properly. This specification provides several tables with the information necessary to evaluate a brick wall for conformance to the ASTM C216 spec.



This specification goes into great detail of the characteristics of brick, such as ordering brick, materials and manufacture of brick, physical properties of brick, efflorescence, permissible dimensions and testing of brick. To review these characteristics and have these details as your reference for brick, you can purchase a copy of the ASTM C216 specification from www.ASTM.org.



The Masonry Advisory Council is a non-profit organization that markets and promotes the benefits of building with masonry. Our vast network of industry professionals are available through MAC as a source of education, technical support, promotion, and market outreach.

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