General Shale Brick

Technical Bulletin – Chippage

Brick is inherently a very dense hard material and is subject to chipping if impacted by another dense hard material such as another brick. Brick chippage can occur during shipment or from rough handling on the jobsite.

ASTM International has material specifications under which we manufacture and sell our brick; ASTM C216 Standard Specification for Facing Brick (Solid Masonry Units Made from Clay or Shale) and ASTM C652 Standard Specification for Hollow Brick (Hollow Masonry U nits Made from Clay or Shale). These specifications include very specific allowances for brick chippage.

The below table (ASTM C216 Table 4) shows chippage allowances for textured Type FBS and HBS brick which are the most common types of brick produced.

Table 4 Maximum Permissable Extent of Chippage From the Edges and Corners of Each Finished Face onto the Surface

Type	Percentage Allowed	Chippage in inches in from		Percentage Allowed	Chippage in inches in from	
		Edge	Corner		Edge	Corner
FBS Textured	15% or less	5/16 - 7/16	1/2 - 3/4	85 - 100%	0 - 5/16	0 - 1/2

As you can see, the standard allows for virtually all brick to be chipped to some extent. It is unfortunate that a mason would lay chipped brick units in the wall. Many times, the masons in their haste can overlook chipped brick. This is why all of our brick tags include a very important message "*Use Constitutes Acceptance*". The wording of this card is a summary of Section 10.3 of ASTM C216 and Section 7.6 of ASTM C652 Specifications. In essence it states don't lay chipped or otherwise damaged brick in the wall because to do so means you accept these brick instead of setting them aside and receiving replacement brick from the seller. The specification also allows up to 5% of the brick in a shipment to be broken, out of tolerance, or chipped. An important thing to note is that brick do not chip in the wall. Something to look for is mortar present on the face of a chip. This indicates that the brick was chipped when laid as seen in Figure 2 below. Chippage is purely aesthetic and will in no way affect the durability or structural integrity of the brick units.

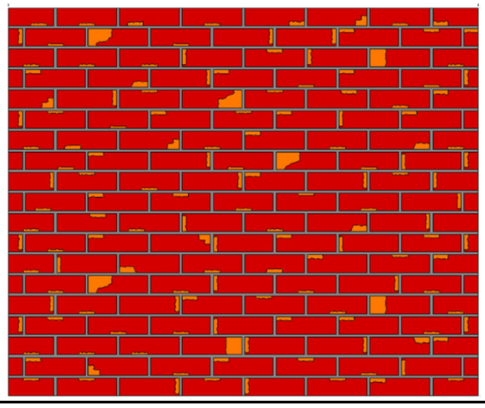

Figure 1: Example wall that meets ASTM C216 and C652 chippage standards

Figure 2: Mortar present on face of chipped brick