



# ASTM CHIPPAGE LIMITS FOR BRICK

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ASTM standards C 216 (for facing brick), C 652 (for hollow brick) and C 1088 (for thin brick) spell out the acceptable amount of chippage to prevent or resolve disputes over the condition of brick delivered to the job site and placed in a wall.

The standards allow up to 5 percent of brick in any shipment to be broken or chipped beyond the prescribed limits. For the remaining 95 percent of the shipment, chippage limits (as well as limits on variations in size and shape) are part of appearance criteria and depend on the type of brick being used. The chippage limits concern the extent of chips measured from the edge or corner of the brick.

In no case can the total length of chips be more than 10 percent of the perimeter of the brick face.

Type X brick are subject to the most stringent manufacturing controls and are allowed the fewest and smallest chips. At least 95 percent of Type X brick must be free of chips greater than 1/8 inch from an edge or 1/4 inch from a corner. Up to 5 percent can have chips between 1/8 and 1/4 inch from an edge or between 1/4 and 3/8 inch from a corner.

Smooth-faced extruded or dry-pressed Type S brick have the next most restrictive chippage limits, followed by molded or extruded Type S brick with sanded, combed, scratched or otherwise textured finishes (see Table). Type A brick does not have ASTM-designated chippage limits: they are made to meet specified aesthetic criteria less stringent than those for Type S.

**Maximum Permissible Range of Chippage**

Specification and Type or Application			Percent Allowed	Chippage in From		Percent Allowed	Chippage in From	
ASTM C 216	ASTM C 652	ASTM C 1088		Edge, in. (mm)	Corner, in. (mm)		Edge, in. (mm)	Corner, in. (mm)
FBX	HBX	TBX	95 to 100%	0 to 1/8 (0 to 3.2)	0 to 1/4 (0 to 6.4)	5% or less	1/8 to 1/4 (3.2 to 6.4)	1/4 to 3/8 (6.4 to 9.5)
FBS <sub>1</sub>	HBS <sub>1</sub>	TBS <sub>1</sub>	90 to 100%	0 to 1/2 (0 to 6.4)	0 to 3/8 (0 to 9.5)	10% or less	1/4 to 5/16 (6.4 to 7.9)	3/8 to 1/2 (9.5 to 12.7)
FBS <sub>2</sub>	HBS <sub>2</sub>	TBS <sub>2</sub>	85 to 100%	0 to 5/16 (0 to 7.9)	0 to 1/2 (0 to 12.7)	15% or less	5/16 to 7/16 (7.9 to 11.1)	1/2 to 3/4 (12.7 to 9.1)
FBA	HBA HBB	TBA	As specified by the purchaser					

1. Extruded brick with unbroken natural die finish face and dry-pressed brick.
2. Extruded brick with finished face sanded, combed, scratched, scarified or broken by mechanical means such as wire cutting or wire brushing and molded brick.

Table is adapted from Table 8 in BIA Technical Note 9A

