

ENGINEERING SERVICES

Technical Bulletin - Bloating

Bloating is a process that is relatively common in the production of clay brick. This is a result of carbon hearts formed in the firing process in the kiln. During vitrification, or glass formation of materials, the brick begins to seal itself. This can trap gases forming within the brick, and sometimes cause the face of the brick to bulge slightly.

The phenomenon is influenced by gas conditions in the kiln which prevent some of the carbon in the material from burning completely. Therefore "black cores" or "black hearts" may also sometimes be present in the body of the brick or visible on the face. Additional names for the this include "black spots" "carbon spots" and "carbon hearts".

While bloating can affect the appearance of the brick, it in no way affects the durability or structural performance of the brick. These brick are actually stronger and more durable than other brick because the carbonaceous materials, which are formed, are typically harder and denser than a normal brick body. In fact, black coring used to be intentionally induced in clay sewer pipe manufacturing to improve the compressive and tensile strength.

It has been our experience through testing and long observance of wall performance that these brick are as structurally sound and as durable as companion brick with no black-coring or bloating.



Photo 1: Bloating

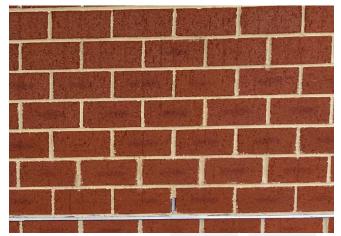


Photo 2: Carbon Spots

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