LIME BLOWING

Technical Note

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Many brickmaking clays used within the UK naturally contain pockets of the mineral Calcium Carbonate which can frequently derive from fossil fragments. To mitigate the effects of this mineral (and others), brick factories are equipped with a variety of clay preparation equipment, which results in a small particle size prior to subsequent manufacturing stages.

Occasionally particles of Calcium Carbonate may accumulate close to the face surface of the brick and when fired in the kiln at high temperature, these particles will decompose to form calcium oxide commonly known as quicklime. upon contact with moisture, calcium oxide will form calcium hydroxide. This reaction is expansive, and when this takes place close to the surface it can bring about a shallow disruption and reveal the body colour of fired clay.

It is important to note that once this has occurred the mineral becomes inert and no further reaction of this nature takes place, accordingly such occurrences are not progressive or on-going. The presence of such particles does not affect the long-term durability or performance of the bricks in work.

The products remain compliant to their declaration of performance in accordance with BS EN 771-1 (European Standard for clay masonry units) and in this regard they remain fit for purpose. The residual issue is therefore one of aesthetics which can be subjective. An addendum to the above standard is PAS 70, which sets out guidance relating to the assessment of brickwork. It outlines an assessment position from 3 metres and that the scrutiny of individual units should be avoided in favour of judging the brickwork in its entirety.

Where disruptions are not conspicuous upon initial observation from the 3 metres distance then it would normally be considered acceptable as a characteristic associated with a natural product. Additionally, the loose sometimes powdery residue will normally disperse following subsequent weathering.

Where facial disruptions are judged to be conspicuous, it may be appropriate to remedially tint over the disruption with a colour fast pigment to improve the appearance.

An example of this is illustrated in the images below.

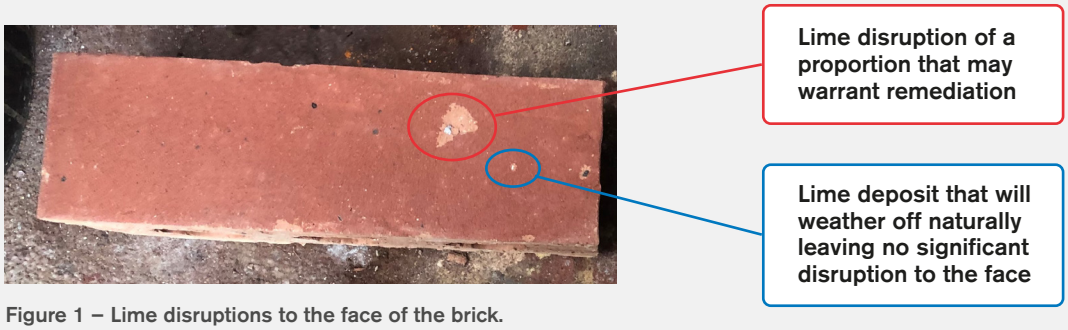

Figure 1 – Lime disruptions to the face of the brick.

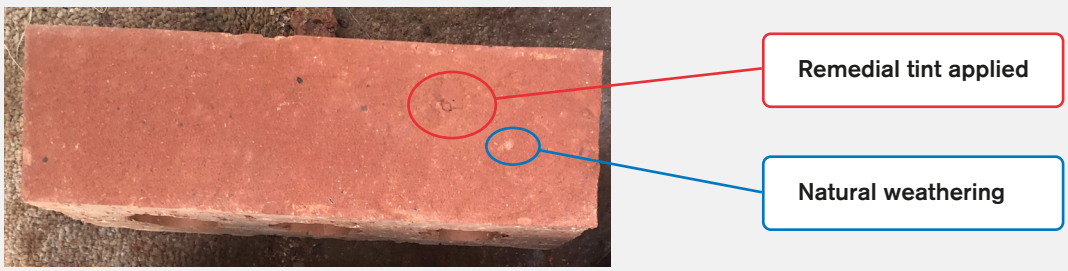

Figure 2 – The same brick with a remedial tint application and natural weathering.

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