EFFLORESCENCE IN BRICKWORK



What is Efflorescence?

Efflorescence is a powdery deposit of salts which forms on the surface of bricks and mortar. It is usually white but can also appear yellow, green or brown. It is caused by a number of soluble salts including the sulphate or carbonate compounds of calcium, sodium, potassium and magnesium. The salts may originate in the bricks or be introduced through the mixing water, cement or sand used for the mortar mix, or even from the ground on which the bricks were stacked and stored.

Efflorescence is quite common in new brickwork and is usually a harmless, temporary seasonal problem, often occurring in spring following a wet winter.

The main concern is the unsightly appearance caused by the white staining that it produces. Persistent efflorescence could also indicate a design or construction fault that allows the brickwork to become and remain saturated.

Removal of Efflorescence

Efflorescence will typically decrease or disappear as the weather warms up. As the salts are water soluble, they are often removed naturally by rainfall.

If the appearance is causing concern, efflorescence can usually be removed from the face of the brickwork by brushing the masonry with a stiff brush.

If efflorescence persists following brushing, the masonry can be treated with a weak acidic solution, which neutralises the salts.

Best Practice to avoid Efflorescence Occurring

We strongly recommend storing bricks shrink-wrapped on pallets off the ground on an even surface and protected from rain, mud and splashes to prevent moisture absorption.

Newly constructed masonry should always be covered to protect cavities and prevent moisture saturation.

The appropriate damp proof courses, sills and copings need to be incorporated.

The occurrence of efflorescence can also be affected by mortar types. The use of low alkali cement in mortar and grout will help to keep efflorescence to a minimum.

Further information, design and construction advice and best practice guides can be found on the *Brick Development Association* website http://www.brick.org.uk/

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