

CARE WITH MORTAR FOR COLOUR CONSISTENCY



Overleaf we have shown how, with understanding and care, the inevitable slight variations in the colour and texture of individual bricks need not result in colour banding or patchy brickwork. We now consider mortar and the equal care and attention needed to maintain colour consistency.

Mortar accounts for 17 per cent of surface area in half-bonded stretcher brickwork and variations in mortar colour or texture have a marked effect on the apparent colour of the brickwork. This can be intentionally and positively exploited but unintentional variations may be visually disruptive as shown in the accompanying photographs.

The factors affecting the colour and texture of finished mortar joints are listed to help site supervisors and operatives achieve uniformity.

CONSISTENT SOURCE OF MATERIAL

Because sand and even cements can vary in colour they should be obtained from a consistent source.

CONSISTENCY OF BATCHING & MIXING

Variations in the proportions of cement, lime or sand or worse a change to the use of, say, masonry cement will almost certainly change the colour of the finished mortar joint.

Great care should be taken when mixing on site but if practicable it is better to use ready-mixed lime-sand for mortar (coarse stuff) or ready to use retarded mortars, especially if pigments are required as they are very difficult to proportion accurately and consistently on site.

CLEANLINESS IN STORING MATERIALS

Contamination of sand or stocks of ready-mixed lime-sand, and exposure of the latter to rain which will wash out the finely ground particles of lime or pigment may effect the colour of mortar joints.

Provision should be made for adequately storing and protecting each material separately.

PROTECTION OF NEW BRICKWORK

Rain falling on newly built brickwork is likely to wash out the fine particles of pigment or lime causing that part of the brickwork to have a different colour from the remainder.

New brickwork should be protected from any possible rainfall particularly overnight.

CONSISTENCY OF WORKMANSHIP

Inconsistencies in the finishing, including the tooling of joints may lead to variations in the appearance of finished brickwork. This is easily avoided by competent site supervision and co-ordination.

VIEW POINT

Design, Buildability and Craftsmanship

If you have any views on brickwork, design, buildability, craftsmanship etc Contact Bill Villars, Consultant Editor, Brick Bulletin, 23 Selwyn Avenue, Richmond, Surrey TW9 2HB (Tel 01 940 5803)

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CAUSES OF INCONSISTENCY

CLIENTS, brick manufacturers, suppliers, designers, builders and the general public all dislike the appearance of good brickwork being marred by patchiness or colour banding. The root cause is the failure to make provision for the natural variations in colour and texture of bricks, to control the storage and mixing of mortar ingredients and to protect built brickwork. This article deals with the bricks. A future article will consider the mortar.

Some variations in the colour and texture

of bricks are inevitable, indeed the variations in some types of bricks are admired and users would regret any steps to achieve greater uniformity. The same phenomenon occurs with textiles, wallpaper and paints, and the designers and craftsmen, being fully aware of the variations, make provisions accordingly.

With bricks the trick is to blend the consignments so that any variations are mixed throughout the whole of the brickwork.



PROVISIONS TO MAINTAIN CONSISTENCY

There are two main provisions to be made. First, to deal with possible variations of colour and texture **within** a batch or delivery and secondly to deal with possible variations **between** consignments. In the first case, labourers must be instructed to open at least three packs and draw from each simultaneously when supplying the bricklayer. In the second case, as it is often not practicable to have all the bricks delivered at once, forethought is required and provision must be made by the designer, specifier or builder to alert the supplier or manufacturer if the

design requires large areas of brickwork to be built with bricks from different consignments. The response to the need will vary with the type of brick and the manufacturing process; some manufacturers may blend some types of bricks as a matter of course while others may do so on request or make other appropriate provisions.

To summarise, the key to success is for designers, specifiers and builders to identify and avoid the problems at an early stage by making appropriate provisions.

AUTHORITATIVE QUOTE

"It is desirable that facing masonry units should be mixed either on site or, by agreement with the manufacturer, at the

works, to avoid the effect of bands of colour in the finished work." Clause 30.2 BS5628:Pt 3 "Use of Masonry."

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