

SITE PRACTICE AND TROUBLESHOOTING CLAY FACING BRICK ASSESSMENT OF APPEARANCE, HANDLING & PROTECTION

The appearance of brickwork isn't covered in the Code for the specification of masonry units (BS EN 771-1) as it is not performance related. However the British Standards Institution has published PAS 70, A Publicly Available Specification which is intended to cover aesthetic aspects.

Its main points are abridged here along with further general advice on handling, storage and protection of bricks and brickwork. Information and advice relating to Health & Safety is contained within Ibstock's 'COSHH Packaged Bricks Handling' information sheets.

APPEARANCE (PAS 70)

Prior to construction, the manufacturer should provide upon request a reference panel sufficiently representing the bricks in question. This should be built on site and should be to a size agreed by all parties but not less than 1m², and be constructed using the intended mortar colour, joint profile and bond of the finished building. Note: Reference panels should be supplied at a time close to the commencement of work so current production and subsequent deliveries typical of current production can be assessed.



Portable Sample boards should not be taken as the definitive guide to colour, they are intended to give an idea of colour and texture to aid decisions however a reference panel from current production will show a broader perspective of the likely colour variations, particularly for 'multi' coloured

Each consignment of bricks should have a sample panel built adjacent to the reference panel from bricks randomly chosen from the whole load (to check colour/texture consistency). Individual bricks should not be closely scrutinised. It is often misleading to judge colour or texture from unopened packs.

It should also be noted that facing bricks are provided with the expectation that only one stretcher and one header surface will be visible in service as seen in normal cavity construction. The rear face of most wire-cut products will be unsuitable for facing purposes and some 'stock' bricks may have a preferred face.

- a) The reference panel should be built on a level firm foundation in a dry location with natural daylight and protected from the elements. All bricks supplied in the reference pack should be used.
 - b) Construct sample panels representing subsequent deliveries in the same way allowing mortar sufficient time to dry out before viewing. Or -dry lay bricks sampled in the same manner but take no account of mortar or joint profile.
 - c) Assessment of panels should be agreed by all parties.
 - d) All panels, when viewed from approximately 3 metres away, should not differ significantly.
 - e) Dependent on the nature of the product, bricks should be reasonably free from deep or extensive cracks, damage to edges and corners, pebbles and expansive particles of lime.
- General manufacturing quality parameters will allow a certain amount of minor blemishes such as hairline cracks and chips into packs of best quality brick. These are rarely noticeable when brickwork is viewed at normal distances and their inclusion will have no detrimental effect on long-term durability performance.
- To avoid many of the issues of colour variation of products built into structures, the following procedures are recommended either by British Standards or Industry Associations.
- f) Inform the manufacturer in the first instance of the total amounts involved so deliveries from one batch can be arranged.
 - g) Upon delivery, check each load against the reference panel.
 - h) Always blend from AT LEAST 3 packs. If this is not possible, i.e. for small quantities involving 1 or 2 packs, work through packs 1 blade at a time rather than by layer.

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DELIVERY OFF-LOADING



Each pack weighs in the region of a tonne and extreme caution must be taken when unloading and storing. Packs should be placed singly on dry, level ground. It may be possible to stack normal facing/

engineering brick packs up to 3 high if they are carefully placed directly on top of each other, without touching adjacent packs by a competent forklift driver provided the stacking ground is hard, level and designed to carry the weight. Any pallets supplied by the client to store or transport packs must be very close in size to the pack dimensions and must be of adequate strength to support the weight of product placed on it.

ON SITE HANDLING & STORAGE

Often brick packs are lifted onto scaffolding prior to blending from the recommended minimum 3 packs. Bear in mind that this practice may result in blocks or bands of colour which may not recreate the intended aesthetic of the brickwork as indicated by the reference panel.

Keep unused bricks clean and dry.

Consider that by storing shrink-wrapped packs on damp ground it will result in condensation on warm days which could draw out efflorescence from certain products.

Consider that in winter months packs may be wet prior to use and, particularly for low absorption products, packs may require breaking open and stacking out under a breathable cover to allow air circulation for optimum drying before use.

PROTECTION OF MATERIALS

It is imperative that all walls must be covered when works stops. Whether construction takes place in hot summer months or over the winter period, brickwork needs adequate protection from follow-on trades and the elements to ensure its performance and appearance isn't compromised.

Most people are aware that cold weather working can adversely affect the brick-mortar bond if allowed to freeze before mortar has hardened sufficiently. Hessian is traditionally used as an insulating material coupled with polythene sheeting to keep brickwork dry and frost free.

Similarly hot weather can evaporate moisture from fresh mortar too quickly unless it is covered by impervious sheeting to slow down the evaporation process.

After-care of brickwork is an important part of the bricklaying process and one which is sometimes ignored resulting in flaky or de-bonded mortar, sodden cavity insulation, efflorescence and lime staining.

Proprietary masonry protection materials are available that offer defence from hot, wet or frosty weather.

Covering brickwork in material that is already wet or which can become saturated may result in staining. Always ensure absorptive protective materials are covered by an impervious layer.

Wrapping brickwork tightly in impervious materials could lead to 'sweating' so it is necessary to maintain some airflow.

Be aware that allowing fresh brickwork to become saturated is likely to result in short term efflorescences or potentially permanent stains requiring treatment such as cementitious stains, lime leeching from mortar or concrete slabs, and iridescent stains which can form on blue brick from dissolved mortar fines leeching onto the face.



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