Ibstock Brick

SITE PRACTICE ANDTROUBLESHOOTING

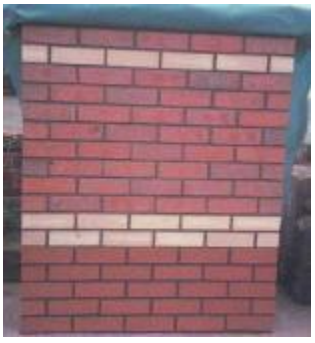
CLAY FACING BRICK ASSESSMENT OF APPEARANCE, HANDLING & PROTECTION

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 brick in question. This should be built on site and should be to a size agreed by all parties but not less than 1 sqm 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 definative guideto colour and 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 products and blends.

Each consignment of bricks should have a sample panel built adjacent to the site panel from bricks randomly chosen from the whole load. 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 is seen in normal cavity Construction. The rear face of most wire-cut products will be unsuitable for purposes and some stock bricks may have a preferred face.

a) The reference panel should be built on a level firmfoundationin a dry location with daylight and protection from the elements. All bricks in the reference panel should be used.

b) Construct sample panels representing subsequent deliveries in the same manner, allowing mortar time to dry before viewing.
Or -dry lay bricks sampled in the same manner but take no account of mortar joint profile.

c) Assessment of panels should be agreed by all parties.

d) All panels, when viewed from approximately 3 metres away and 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.

For further information or advice regarding this topic please contact
Ibstock's Design & Technical Helpline on 0844 800 4576 or email technical@ibstock.co.uk

TECHNICAL INFORMATION **B12**

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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 and we recommend no greater than 2 high if they are carefully placed directly on top of each other, without touching adjacent packs by a trained and competent forklift driver (utilising the correct forklift vehicle and forks suitable for the packs).

The stacking ground must at all times be 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.

Any pallets supplied by the client/customer to store or transport packs MUST be in size as close as possible to the pack dimensions and MUST be designed to take the load and specify the pallet load capacity to support the weight of load placed on it to avoid potential stack collapse.

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 may draw out effloresence from some products.

Where cut bricks are unavoidable ensure that they are cut cleanly and accurately. Masonry saws will give the best Results but a lump hammer and bolster is normally suitable. On facing brickwork cutting with a trowel edge is NOT recommended and is very likely to damage the brick face.

PROTECTION OF MATERIALS

It is imperative that all walls must be covered when works stops. This also applies to bricks on stock, which should be kept dry and covered from the elements at all times.
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 cured sufficiently. Hessian is traditionally used as an insuating material.

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, wet cavity insulation, efflorescence and lime staining. Proprietary masonry protection materials are available that defend against 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 lime leeching from mortar or concrete slabs, and iridescent stains which can form on blue brick from dissolved mortar fines leaching onto the face.

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.

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OFF-LOADING

These packs may be delivered on disposable wooden pallets or they may be held together as a unit by plastic or steel straps.

The strapping must NEVER be used to lift packs. Only use the holes in the packs or pallets provided. It is recommended that suitable handling forks should have a width of 90mm and be 1100mm long; it is also recommended that grabs should only be used on solid packs.

It is strongly recommended that brick void packs should always be lifted via the void holes, by a forklift truck with a trained and competent forklift (utilising the correct forklift vehicle and forks suitable for the packs). This allows for correct distribution of the pack weight under the void layer, which is the layer the straps are supporting. However quite often "side grabs" are used, especially on delivery vehicles. It is strongly recommended that the grab should ALWAYS pick the pack up on the NON-STRAP side i.e. the brick header side and as near to the bottom of the pack as possible. This method ensures the grab has all the weight of the brick pack. The pack should NOT be "grabbed" at the top of the pack because all the brick weight is left supported on the straps.
All personnel involved in the handling of packs should be made aware via the site/merchant yard risk assessment/SSOW that both steel and plastic straps could snap in certain circumstances allowing the product to fall.

- AVOID abnormal shocks to the packs
- AVOID sliding one pack against any face of another pack
- Note straps can deteriorate over time

It is recommended that wherever possible, packs should be placed singly on hard, dry and level ground.

It may be possible to stack normal facing/engineering brick packs without a pallet, however we strongly recommend that palletized packs be stacked no higher than 2 packs and on dry, solid and level ground. The pallets supplied by the client/customer to store or transport packs MUST be as close as possible in size to the pack dimensions and MUST be designed to take the load and specify the pallet load capacity to support the weight of product placed on it to avoid potential stack collapse. If there are ANY indications of instability, such as the stack leaning, then the packs should be immediately re-stacked at ground level. This should be checked periodically for any signs of deterioration in pallets and/or strapping.

IT IS THE CUSTOMERS RESPONSIBILITY TO OBTAIN TECHNICAL DATA ON ALL MATERIALS TO BE USED IN CONJUNCTION WITH THESE PRODUCTS.

For further information or advice regarding this topic please contact
Ibstock's Design & Technical Helpline on 0844 800 4576 or email technical@ibstock.co.uk