

## Application & construction **FIREBORN CLAY UNITS – HANDLING & LAYING GUIDELINES**

**Fireborn clay units leave the factory quality checked and are protectively packaged.**

**To minimise damage on site, the following guidelines are strongly recommended.**

- Careful handling on site is imperative.
- Do not allow units to come into direct contact with the ground to avoid contamination and staining.
- Do not stack pallets of units.
- Keep units dry. Cover with waterproof sheeting but allow air to circulate.
- Keep products in original packaging for as long as possible.

During laying –care must be taken when stacking individual units and do not use the edge of the trowel for levelling to minimise chipping.

Weep holes, vents and cavity trays should be incorporated in accordance with the Code of Practice PD 6697:2010.

As with all clay products, subtle colour variations are to be expected therefore units should be blended from several pallets during construction.

### **CUTTING**

When cutting these units use an industrial diamond tipped, water cooled saw blade preferably bench mounted. After cutting, rinse with clean water, allow to dry before laying. Using dry blades may result in excessive chipping.

**CAUTION MUST BE TAKEN WHEN HANDLING FIRED CLAY MATERIAL WHEN THE SURFACE HAS BEEN BROKEN RESULTING IN SHARP EDGES. ALWAYS WEAR PROTECTIVE GLOVES, EYEWEAR AND CLOTHING WHEN CUTTING.**

### **LAYING**

**Fireborn clay units should be used in accordance with BS EN 1996 and PD 6697.**

These units are intended to be laid with the perforations vertical for maximum unit strength and bond strength with mortar. Compressive strength will be much reduced if the perforations are laid horizontally. An embossed arrow on the reverse of the units should be pointing up.

**Setting out** should be to face dimensions as there may be a taper to the rear affecting the joint width. Fireborn units are manufactured to a size tolerance of  $\pm 3\text{mm}$ . The first course of units should initially be set out dry so vertical joints can be evened out. The subsequent courses can then be correctly centred, depending on choice of bonding pattern, on the joint/unit below.

The size of the unit is gauged from measurements taken between 1 to 2 cm back from the face. A special electronic measuring gauge is used at the factory, however for site conditions a retractable tape can be used.

The larger sizes are relatively heavy, although they do not exceed 15kg, and laying them is a two handed operation.

Dependant on the mortar characteristics and weather conditions there will obviously be restrictions in the number of courses that can be laid in one day as with normal bricks. It should normally be possible to lay between 6 and 8 courses in one lift, however, incorporating a proprietary masonry support system such as Brikmat® will prevent mortar being squeezed out of the joints by the weight of the subsequent courses and can significantly increase the amount of courses that can be laid in a day.

**During construction do not allow perforations to fill with water and ensure follow on trades continue to protect Fireborn units from saturation and other types of staining.**

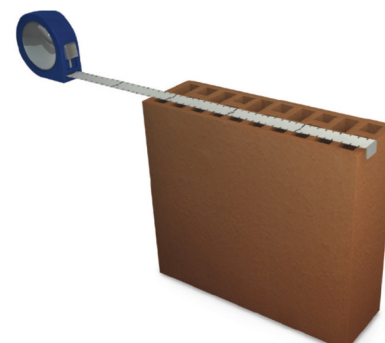
Particularly with blue units, protect fresh mortar from rain showers as excess moisture can cause cementitious material to spread onto the face of the unit creating 'picture framing' or similar staining.

**Mortar** - Normally a designation (ii) mortar mix (1: ½ : 4 ½, cement lime sand or equivalent) will be the most appropriate mixed to a relatively stiff consistency bearing in mind the weight of the larger units.

Use full mortar beds and a nominal 10mm joint thickness, fully filling perpend.

For blue units which will be laid in cold and damp weather conditions it may be beneficial to use a designation (i) mix (1: ¼ : 3 cement:lime:sand or equivalent) to prevent excess moisture in the mortar fouling the face of the block and causing staining.

Brickwork in general should not be laid in temperatures of 3 degrees and falling.



**Movement joints** – at normal recommended spacing for clay units, please contact an Ibstock Design Advisor. Where bed-joint reinforcement is used our experience has found that joint spacing may be slightly increased.

**Wall tie spacing** – at normal centres as per PD 6697

**Stack bonding** – Where stack bonding is employed, stainless steel ladder type bed joint reinforcement should be used to ensure adequate load distribution and bonding and be laid in accordance with manufacturer instructions. Care in setting out is required in stack-bonded situations to ensure uniformity of vertical joints. A flattened wire section will be needed to ensure compatibility with wall ties. Wall ties should be placed 225mm vertically when possible and 600mm horizontally. For further advice please contact an Ibstock Design Advisor or Ancon Building Products.

**Joint Finish** – to choice but should be well tooled and compacted. If a square recessed profile is specified **the depth of recess should not exceed 3-4mm.**

### CLEANING

- Always try to build as cleanly as possible and protect from saturation during construction. This is particularly important with Natural Blue units to minimise staining.
- Use a wooden tool to remove any lumps of mortar from the surface.
- To clean down after mortar has cured, wet with a fine water spray and use a soft bristle brush, repeatedly rinsing.
- For more stubborn areas a proprietary masonry cleaner may be used being sure to pre-wet the wall prior to application. After reaction, rinse with a fine water spray working from the top of the elevation downwards.
- Do not saturate the masonry or use pressure-washing equipment.
- For cream coloured units, do not use hydrochloric acid-based cleaners if yellow/green vanadium staining is present. For advice on the removal of such stains, please contact Ibstock.

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](mailto:technical@ibstock.co.uk)

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