

Handling, Storage, Installation and Aftercare of Cast Stone Products

Cast stone units should be handled and stored with care to prevent damage or staining.

Health & Safety

Please read our Safety Data Sheet (COSHH) regarding our concrete products. This can be downloaded from our website [here](#).

Handling

Prior to ordering Cast Stone units, site managers should carry out a risk assessment on how the units are going to be handled on site.

When considering how to handle cast stone units, the size and weight should be taken into account. This information can be found on the Ibstock website. The weight will also be on the label tagged to the unit. If manual handling is being considered then it should be noted that repetitive handling of concrete products can give rise to musculoskeletal disorders (MSDs), in particular sprains and strains which are often of the back.

Please refer to HSE Construction Information Sheets CIS61 entitled 'Manual Handling-what you need to know as a busy builder' and CIS77 entitled 'Preventing injury from handling heavy blocks-what you need to know as a busy builder' for further information.

Specialist help should be sought for anyone involved in this type of work.

If you require lifting sockets to be cast into units, please contact Ibstock to discuss your requirements prior to placing your order.

Where lifting sockets are cast into the units, use lifting loops in conjunction with a Spreader beam.

If slings are used to lift individual units (contractor's risk assessments should ensure this is carried out safely), position slings to provide even support and protect arrises at sling locations.

This sheet does not constitute an assessment of workplace risk.

Storage

Consider the access arrangements and ensure that the delivery vehicle can be safely manoeuvred to the desired point of delivery.

All deliveries of Ibstock Cast Stone are palletised with shrink wrapping.

Pallets should be off-loaded using a forklift truck or crane using suitable forks. Provide a firm, level, clean and well drained base to allow safe delivery and storage. This area should not be at risk of soiling from passing vehicles or other adjacent site operations. Ideally pallets should be stored in a designated storage area. If possible store pallets such that they can be accessed in fixing sequence to avoid double handling.

Pallets should not be stacked on top of each other.

Do not stack other items on top of pallets of stonework.

Check delivery tickets to ensure what has been delivered is correct. Check components are not damaged. Report any discrepancies or damage to Ibstock immediately.

Pallets should remain unopened until the units are required.

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Do not rip open packaging using site tools or other, but carefully cut packaging with a knife ensuring that the blade does not damage the stonework.

After removing stonework from the pallet ensure that remaining stonework does not come face to face by utilising packing material that the units arrived with. It is particularly important that this packing material is in place if the pallet is to be moved (this should be carried out using a forklift truck or crane using suitable forks).

Recover opened pallets with a waterproof sheet to prevent remaining units getting wet or dirty.

Disposal of Packaging

Packaging should be disposed of in accordance with local authority requirements. Redundant packing materials should be gathered together daily and placed in waste disposal skips for removal to an approved tip.

The burning of any packaging materials is not normally permitted on sites: some plastic materials may give off harmful fumes. If permission is granted for the burning of wooden pallets, great care must be exercised to ensure that environmental pollution controls are not contravened.

Installation

Cast Stone should be installed by suitably qualified operatives.

Units should be installed in accordance with Ibstock's recommendations and the relevant British Standards (BS EN 1996-2:2006, the National Annex to BS EN 1996-2:2006 and PD6697). Installation guides can be found on our website [here](#).

Cutting

Whilst most Cast Stone units do not need cutting, some, such as Ashlar blocks may need to be cut to suit on site. Persons carrying out this operation need to wear suitable PPE as identified in the contractors risk assessment.

It is advisable to cut blocks on a clipper bench station with a diamond-tip blade and a fresh supply of clean, uncontaminated water. The cutting slurry produced is unavoidable and needs to be washed away from the face of the units immediately after cutting. The chemical reaction caused by cutting reactivates the cement which hardens onto the first material it makes contact with after cutting. This is accelerated by the heat generated in the cutting process. Dry cutting is not recommended because of this reaction. NB: care should be taken in locating the clipper bench station to avoid the cutting slurry contaminating previously cut units or areas of laid wall.

Protection

Use a waterproof sheet to protect laid Cast Stone from rain, frost, mortar, dirt and dust etc from other trades. Use edge protectors to prevent damage to arrises. To prevent condensation forming allow for air to circulate within the protection.

Aftercare

Cast Stone weathers in a similar way to natural stone in similar circumstances. However, in order to prevent deterioration of the Cast Stone, the building must be regularly maintained with special regard to gutters, downpipes and watercourses. Cast Stone should be cleaned in accordance with Ibstock's recommendations.

Over an extended time period we would expect natural weathering to have some aesthetic impact on the appearance of the product; this will not, however, affect the structural integrity of the product.

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The finish of all building materials are affected by the weather and Ibstock give no guarantees that the colour and finish will not dull with time. Likewise, Ibstock cannot guarantee that the units will not suffer from lime bloom efflorescence (despite the fact that the units contain a water repellent), which is common to all cement based products, though this will not impair the performance of the units.

Fixings can be accommodated in our Cast Stone Ashlar blocks for lights etc. When drilling Cast Stone do not use hammer action drills and fix with the use of resin anchor systems and not expander type fixings. Avoid fixing in the top three courses of the wall; fix on the centre line 50mm from each end; avoid fixing in mortar joints and never fix next to a wall edge.

NB: Our Structural Heads cannot be cut, ground, drilled or chased in any circumstances.

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. In both cases, the products may be contained by a plastic shrink-wrap, if requested by the customer.

All personnel involved in the handling of packs should be made aware that both steel and plastic straps could snap in certain circumstances, allowing the products to fall:

- **AVOID abnormal shocks to the packs**
- **AVOID sliding one pack against any face of another pack**
- **NOTE Straps can deteriorate over a period of time**

The strapping, if provided 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 recommended that packs should always be lifted via the void holes, by a fork lift truck or similar device. 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 lorries. It is recommended that the grab should ALWAYS pick the pack up on the NON STRAP side and as near to the bottom of the pack as possible. This method ensures the grab has all the weight of the pack. The pack should NOT be "grabbed" at the top of the pack because all the weight is left supported on the straps.

Wherever possible, packs should be placed singly on dry, level ground.

We recommend stacking packs up to 2 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. If there are any indications of instability, such as the stack leaning, then the packs should be immediately re-stacked at ground level. 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 and take into account the weight of any other products stacked above it.

ON SITE HANDLING

Some pack configurations can be split into vertical legs or blades. These legs are only stable if stored or moved around while laid flat on a pallet - they must not be moved in the vertical position.

Where packs are lifted more than 1 metre above ground level, a safety cage of adequate dimensions around the pack should be used. All personnel must stand well clear of packs when they are being lifted or moved.

If it is considered necessary to store pack above ground level, it should only be placed on a suitably designed staging with guard rails and nets of appropriate height to prevent any product falling to lower working areas.

PROCESSING

Straps should be cut by wire cutters and not burst by the application of levered pressure. When cutting straps, the operative should stand to the side of the strap being cut and not in line with that strap. Highly tensioned straps can spring away from the package when tension is released. In accordance with the Personal Protective Equipment At Work Regulations 1992, persons cutting wire strapping under tension MUST wear suitable eye protectors (reference: BS EN 166, 167 & 168).

Strapping around packs has sharp edges and suitable gloves should always be worn when handling this material. When straps are cut, protective footwear and overalls should also be worn because product may fall from the pack, particularly if the pack has been subjected to irregular handling or storage.

Cast Stone products present risk of a manual handling injury.

Large Format Blocks can weigh up to 20kg and lifting is a two handed operation; we recommend that the HSE Information Sheet Guidelines ('Manual Handling- What you need to know as a busy builder') be followed.

Repetitive handling of any product including bricks can give rise to Upper Limb Disorders such as muscular strains and sprains. Specialist help should be sought for anyone involved in this type of work

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

For further help and advice contact us on **01909 775000** or email **Caststone.orders@ibstock.co.uk**

