

**CARE & MAINTENANCE – TECHNICAL BULLETIN #39
CLEANING**

During construction, prevention against staining is mandatory and becomes the best solution for a clean finished project. Every effort should be taken to protect the Cast Stone during storage, setting, and after installation. Storage of Cast Stone should be above ground on non-staining planks or pallets. The storage site should be away from heavy construction traffic. Cast Stone stored for an extended period of time should be kept on pallets or non-staining planking and covered with non-staining tarpaulins. After setting, columns, pilasters, entry jambs, windowsills and all stone with projecting profiles should be protected with non-staining materials during the remaining construction.

Regardless of the degree of care exercised during construction, a final washdown will be needed and, normally, whatever is specified to clean the brickwork will adequately clean the Cast Stone. A variety of commercial cleaners are available and most contain detergents combined with mild solutions of phosphoric and/or muriatic acids. Extreme care should be taken when applying acidic cleaners to areas where joints are left open or where sealant is used as jointing material. The sealant manufacturer should be contacted to ascertain compatibility with cleaning materials. Acids left behind the stone on masonry wythe may cause corrosion problems later on.

The most common stains due to construction are dirt and mortar. Dirt can be removed by scrubbing with a mild detergent and water. Mortar stains require brushing a solution of one part hydrochloric acid to six parts water on the stain. Soak the stone with water prior to adding any acid solution to prevent surface burning. Consult the brick supplier prior to applying acids to trim items. Insure that lower stone courses are frequently drenched with water because as acid is rinsed down the wall it can gather strength when reapplied. Take necessary steps to protect windows, door and grade materials.

When unusual stains are encountered, the same procedures, which are recommended to clean concrete, will normally clean Cast Stone. The Portland Cement Association publishes a guide for the removal of stains in concrete. The most important step to stain removal is identifying the stain and its cause. There are degreasers and paint removers readily available. Any treatment should be tested on a small inconspicuous area prior to cleaning the main units.

Dunnage materials used in the packing and transport of Cast Stone can leave stains (or clean spots) after becoming wet. Wood packaging products can transfer resins to the surface, which may be easily removed. However, solid dunnage made from fresh timber can cause dunnage marks, which become difficult to remove. Packing and dunnage materials should always allow the exposed surfaces to breathe, especially when stones are palletized or placed into storage shortly after manufacture. This will avoid color differential due to moisture becoming trapped on the surface of the stone.

Power washing and sandblasting are not recommended procedures for cleaning Cast Stone. Metal fiber brushes are not to be used for scrubbing Cast Stone. ♦