

Data Sheet - Fixings, Cutting, Laying & Bedding

CSTB6

FIXINGS

Consideration should have been given to the fixing of cast stone at the design stage so that any required fixings can be cast-in during production. This will facilitate easy installation and reduce unnecessary costs and delays. We will be able to advise on the most cost effective solutions to your specific requirements at the point of inquiry.

CUTTING

Cast stone units should be designed to minimise on-site cutting. If it is unavoidable on site, units should be cut with a diamond tipped masonry blade which should ideally be water fed. Once cut, all units should be washed down to remove any excess dust. Due regard should be given to protecting the operative in accordance with the current Health & Safety requirements.

LAYING

Cast stone should only be installed by masons or suitably experienced personnel. Below are some general precautions that should be observed.

- During construction it is advisable to protect finished work using appropriate gauge polythene sheeting. This prevents mortar drops, mastic, paint and other construction materials staining or adhering to the cast stone.
- Mortar stains can be removed by using a dilute hydrochloric acid (typically 7-10%) solution. The masonry should be wetted down with water to reduce the initial suction by the cast stone. Under no circumstances should the masonry be saturated. The stain should be agitated with a nylon brush to break up the surface of the mortar stain. The acid should then be washed from the surface of the masonry. Care should be taken to ensure that the acid washings are collected and conveyed to a safe place for disposal. Protective equipment will be required by the operatives and this will include goggles, rubber gloves and protective overalls.
- Brace constructions to prevent damage to freshly assembled materials. It is also advisable to limit the height and number of courses constructed in any one day, depending upon the width of the wall, mortar strength, exposure, unit density and weight. Typically, individual lifts should be limited to 1.2m in any one day unless restrained.

BEDDING

Typically, cast stone products are designed to be fixed with joint sizes of between 5-10mm between the units. All units should be laid and adjusted to their final position while the mortar is still plastic. Mortar exuding from joints should be cut away without smearing the face of the unit. Use load shedding (plastic) spacers to support heavy stones and to prevent the mortar being extruded until it has cured sufficiently. Locating holes for dowel joints should be completely filled with either mortar or resin.

- Do not leave pockets that could collect water. Protect all unfinished masonry with polythene.
- During hot dry weather, the faces to be jointed should be lightly sprayed with clean water to reduce initial suction and to prevent the cast stone from removing too much moisture from the mortar. If this does occur, there may be insufficient water left in the mortar to fully hydrate the mix and this will result in a dry, powdery joint which may be substantially weaker than anticipated in terms of bond strength. However, it should be noted that the use of water reducing admixtures or other water resistant additives, introduced into the cast stone during manufacture may reduce the effectiveness of spraying the joint with water. Ideally, the correct designation of mortar should be specified in the first instance, to suit the environmental conditions