

Wet Cast Technical Data

Composition

Wet Cast components are manufactured in accordance with BS1217:2008 and BS 8110 in a homogenous wet cast mix. Using natural occurring aggregates, sand, Portland cement and pigments are added where necessary.

Portland cement to	BS EN 197-1:2011
Aggregates to	BS EN 12620:2002+A1:2008
Sands to	BS 1199 and 1200:1976
Pigments to	BS EN 12878:1999

Structural Use

Heads are suitable for structural use up to 1500mm (with minimum 150mm bearings), or greater. But this must be confirmed by your Structural Engineers prior to installation.

Quoins, Plinths and String Courses can be used in load bearing situations when used in compression. All units are reinforced as follows: **except where stated otherwise**. All reinforcement used is mild steel, galvanized or stainless steel available subject to additional costs.

Compressive Strength

When tested in accordance with BS1881: Part 116: 1983 and BS1217:2008 and the United Kingdom cast Stone Association, the cast stone was tested over three 150mm cubes giving an average crushing strength well in **excess of 35KN/mm²**.

Density

The typical mean density of Wet Cast architectural masonry is 2400kg/m³

Initial Surface Absorption

When tested in accordance with BS1217:2008 using methods in BS1881-208 values were found to be less than 0.25ml/(m².s) as required.

Manufacturing Tolerances

All our architectural masonry complies with following tolerances unless otherwise agreed in writing by us.

The actual dimensions of individual regular units should conform to the stated dimensions subject to the *Length*

Tolerance in MM	Length	Width	Thickness
Up to 600mm	+/-2	+/-2	+/-2
Over 600mm to 1000mm	+/-3	+/-3	+/-3
Over 1000mm to 2500mm	+/-4	+/-4	+/-4
Over 2500mm to 4000mm	+/-5	+/-5	+/-5
Over 4000mm	+/-6	+/-6	+/-6

Fire Resistance

Units manufactured in accordance with the standard are non-flammable, non-combustible and do not give off toxic gases and can provide a barrier to the spread of smoke and flames.

Weathering

Many factors influence the way cast stone weathers, such as design, exposure, climate and surrounding. All pigments used are colorfast and durable and confirm to BS1014. Wet Cast architectural dressings will weather in a similar manner to natural stone, when exposed to similar conditions.

Cementitious Efflorescence

As with all reconstructed stone and cement based products there is the possibility that the temporary phenomenon known as efflorescence will occur causing lightening of colour. This will reduce over a period

Resistance to Rain Penetration

As with all facing masonry, (reconstructed stone walling bricks, natural stone etc) external skins of cavity walls are not totally impervious to heavy driving rain as there is the possibility that water penetration will take place through the mortar joints. To avoid this, normal good building practice should be observed.

Cutting

Cast Stone should be designed in such a way as to avoid any site cutting. If cutting is required please consult our technical department.

C.O.S.H.H. Controls of substances hazardous to Health see COSHH Data Sheet

Health, Safety and welfare

The contractor shall ensure that safety; Health and Welfare measures required or by virtue of the provision of any enactment or regulation or the working rules of the industry are complied with.

Surface Finish

The colour and texture of the exposed face of the cast stone should be agreed between the client/architect and ourselves. As with differences in the way units are manufactured this lends itself to subtle variation in the colour. Cement and aggregates used are carefully chosen for their quality and consistency, are all obtained from natural sources and are therefore subject to variations beyond our control. We do and always make every effort to ensure consistency in colour and texture of units manufactured but no guarantees can be given.

Cleaning of Cast Stone

Due to the fine textures and pale colors of cast stone the removal of staining of mortar and other forms of staining can be difficult. It is for this reason that every effort must be made to avoid contamination at early stages.