

Data Sheet - Masonry Walling Unit

CSTB10

We manufacture a comprehensive range of Architectural Masonry Units which are available in a choice of materials, colours and finishes. This data sheet covers those particular products which may be machine made and traditionally used as walling material e.g. Ashlar walling and Quoin blocks.

Ashlar Walling and Quoins are manufactured by blending selected dense aggregates with Portland Cement and in some cases colourfast iron oxide pigments. The mix is then pneumatically compacted to produce dense, compact units with precise dimensions and a clean appearance.

Certain Ashlar Walling is manufactured using a two-part mix whereby a face mix with a minimum thickness of 20mm is combined with a coarser backing mix to make up the overall thickness of the unit.

Architectural Stone Masonry walling units of this type are manufactured and tested in accordance with BSEN 771-5 2003; Specification for Manufactured Stone Masonry Units.

As stated in this Standard they can be defined as:

- Facing Masonry units intended for use with one or more faces visible in use which may or may not be exposed.
- Manufactured Stone Masonry units having at least one exposed face with a close structure formed from either one or two homogeneous mixtures of aggregate, cementitious binder and other materials moulded under pressure and/or vibration and with or without further processing, intended to resemble and be used as an alternative to natural stone.
- Two-part Masonry units manufactured with different facing and backing concretes.

APPEARANCE	Available in a variety of colours and textures
DIMENSIONS	<p>Typical Ashlar Walling units: 440 x 215 x 100/120/140mm 440 x 140 x 100/120/140mm 440 x 290 x 100/120/140mm</p> <p>Other bespoke sizes are available to special order.</p> <p>Typical Quoin blocks 440 x 215 x 215 x 100/120mm plain 460 x 215 x 235 x 100/120mm O/A Chamfered 350 x 215 x 235 x 100/120mm O/A Chamfered</p> <p>Comprehensive details on actual sizes are given in our Technical Manual</p>
TOLERANCES	Category D1 (+3mm – 5mm in all directions)
CONFIGURATION	Minimum face thickness on two-part components is 20mm
SURFACE APPEARANCE	Plain, profiled or textured
COLOUR	Ashlar blocks and Quoins may be produced by a slightly different process than that of other Cast Stone dressings and as such may exhibit slight shade differences and weathering characteristics from hand-cast components.

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FLATNESS OF SURFACE	< 2mm typical for a 440 x 215 Ashlar unit as measured according to BSEN 772-Z0						
DENSITY	Face mix 2100 kg/m ³ Backing mix 1800 kg/m ³						
COMPRESSIVE STRENGTH	<table border="0"> <tr> <td>CHomogenous mixes</td> <td>20N/mm² mean</td> </tr> <tr> <td>Two-part Facing Mix</td> <td>20N/mm² mean</td> </tr> <tr> <td>Two-part Backing Mix</td> <td>15N/mm² mean</td> </tr> </table>	CHomogenous mixes	20N/mm ² mean	Two-part Facing Mix	20N/mm ² mean	Two-part Backing Mix	15N/mm ² mean
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Two-part Facing Mix	20N/mm ² mean						
Two-part Backing Mix	15N/mm ² mean						
THERMAL PROPERTIES	None declared. Consult us if required						
DURABILITY	None declared. Consult us if required. nb – BS 5628, -3; 2005, Table 12 - States that aggregate concrete bricks which are made by a similar process require a minimum compressive strength of 18N/mm ² for use in unrendered external walls.						
WATER ABSORPTION BY CAPILLIARITY	<3.0g/m ² /s ^{0.5}						
MOISTURE MOVEMENT	<0.60mm/m						
WATER VAPOUR PERMEABILITY	5/15μ (Tabulated from EN 1745)						
REACTION TO FIRE	Euroclass A1						
SHEAR BOND STRENGTH	0.15 N/mm ² (Tabulated from EN998-2: 2003 Annex C)						
BUILT WALL WEIGHT	Approximately 225kg/m ² Unplastered Single Leaf 100mm Wall						
PRESENTATION	Self-contained packs, shrink wrapped and protected by polystyrene.						