

Hemcrete[®] Structural Block Information Sheet

1.0 Introduction

Hemcrete[®] structural blocks offer a combination of compressive strength and thermal mass. They are manufactured to a typical compressive strength of at least 3 N/mm². They have a carbon-neutral footprint.

2.0 Technical Data

Compressive strength	3 N/mm ²
Average density	1100-1200 Kg/m ³
Weight	Approx 10.5 kg/ block
Thickness	100mm
Height	215mm
Length	440mm
Thermal conductivity	0.36W/m. K



3.0 Storage

The blocks should be stored on a dry level surface, and should be covered to protect them from severe weather. On uneven ground and on site, stacking should normally be restricted to two pallets high.

4.0 Block Laying

- A regular bond pattern should be maintained, based on a minimum overlap of a quarter of a block.
- Lintels should bear on to full blocks, wherever possible.
- Cut blocks should always be used for irregular and non-standard spaces; bricks, mortars or other dissimilar material should never be used.
- Blocks should be laid on a full bed of 10mm mortar.
- Block work should be protected from adverse weather during, and immediately after laying.
- Moderately and eminently hydraulic Limetec[®] mortars are recommended.
- Blocks should be laid in accordance with the current BS code of Practice for blockwork.

5.0 Cutting and Drilling

Hemcrete[®] structural blocks can be cut with a hydraulic block cutter or hammer and bolster. Holes can be made with a normal drill.

6.0 Thermal Insulation

Hemcrete[®] blocks offer better thermal insulation than conventional dense blocks. (See separate information sheet on Hemcrete Insulation Block)

In addition, Hemcrete[®] blocks have the ability to absorb and hold heat (thermal mass) during sunny periods when the heat is not desirable in the living space of a building, and then releases the heat during overcast periods or during night, when the heat is required.

This reduces any dips in temperature during the winter and peaks in summer, providing the occupants a more comfortable environment.

7.0 Fixing

For light and medium weight fixings (up to 100 kg) normal wood screws (without rawl plugs) can be used. The screws should penetrate the block to a minimum depth of 50 mm (allowance must be made for the thickness of the internal finish as well as the item to be fixed).

Heavier items should be fixed using resin fixings.

As a general rule, fixings should not be closer to the free edge of the block than the depth of the fixing penetration, nor should they be over-tightened as this can affect the pull out strength.

8.0 Finishes

Lime Technology's Baunit render and plaster products are recommended by the manufacturers for external and internal finishes. They meet the physical and biological demands of the built environment.

(Technical information is available on this product on request)

9.0 Sound Insulation

Following factors contribute in achieving good sound insulation:

- Careful design
- Separating wall construction
- Associated structure

Deficiency in just one part can adversely affect the overall performance.

It is suggested that the designer always follow these principles:

- Where ever possible, rooms either side of a separating wall should have similar uses.
- Ideally services should not pass through or be chased into separating walls
- Mechanical equipment should never be mounted on a separating wall, unless fixed on acoustic mountings.
- In the design of the structure, sound transmission can be reduced if:
 - a) the floor slab supporting the separating party wall is not continuous,
 - b) wall ties in cavity separating walls are omitted if they are not required structurally.

