

Karphosit

Technical Information Sheet

Description

Karphosit Blocks are modular building blocks made from clay and straw with a machined tongue and grooved profile on all sides for ease of construction. They are assembled with thin joints using Karphosit mortar which is based on clay, fibre and cellulose.

They are suitable for non-load-bearing applications in internal environments and externally with suitable protection.

Consistency of the product is monitored by quality tests carried out by the manufacturer.

Karphosit Blocks are available in the following sizes :

Product code	Thickness mm	Face Dimensions mm	Weight of Block kg	No. of Blocks/Pallet
	100	500 x 250	11.2	66

Design

Karphosit Blocks are compatible with other natural building materials and 'breathing' construction. They are suitable for use in non-load bearing applications in internal environments and externally with adequate protection. They can be finished by plastering with earth or lime plasters or the Karphosit earth-based skim coat finish.

Karphosit Blocks have significant thermal mass and sound absorbing properties and some thermal insulation value. They are fully vapour permeable and can contribute significantly to control of moisture in the internal environment. Karphosit Blocks can be re-used several times and will ultimately compost when discarded.

Physical properties of Karphosit Blocks:

- Density 900 kg/m³
- Thermal conductivity (K) 0.24 W/mK
- Specific Heat Capacity 1.1 kJ/kgK
- Sound absorption (100mm wall) 52 dB

Construction :

- Walls are constructed using Karphosit Blocks laid on thin (2mm) beds of Karphosit mortar brush applied to all edges.
- The lowest course is laid on a profiled timber plate that matches the groove in the underside of the block. The first course should be nailed through to the plate.
- Where walls meet, the blocks should be butt jointed and nailed through – not bonded in.
- In common with all partition walls, panels of Karphosit Blocks should be fully supported along all edges. The maximum panel size between supports is 4.0m long x 3.5m high.

- The strength and stiffness of the supports must be appropriate to the position and function of the wall within the building.

Finishes :

- Karphosit Blocks can be plastered with a single coat of Karphosit decorative plaster or a thin basecoat of earth plaster with mesh reinforcement followed by an earth finish plaster.

Resistance to Damage :

- Karphosit Blocks are tough, however precautions common to good construction practice should be taken to avoid damage to the blocks when stored on site and during construction.
- Vulnerable edges and corners should be protected.

Resistance to Moisture :

- Short term exposure to moisture will not cause deterioration of Karphosit Blocks.
- Karphosit Blocks will deteriorate if kept in prolonged contact with water or used unprotected in damp environments.
- Contact the supplier for advice on particular applications.

Resistance to Fire :

- Karphosit Blocks are non-combustible – Class B1 in accordance with DIN 4102.
- Walls constructed with Karphosit Blocks are Class F90 in accordance with DIN 4102.

Fixing to Karphosit Blocks :

- Light loads can be carried directly by the blocks using woodscrews.
- Heavier loads can be fixed using larger diameter fixings.

Thermal/Moisture Movements :

- Walls built from Karphosit Blocks will shrink approx. 1mm / m of height. This will occur within 8 weeks after construction of the wall is complete.
- After this period, Karphosit Blocks are dimensionally stable when used in ‘normal’ internal conditions.

Installation

Cutting :

- Karphosit Blocks can be cut with hand or power saws.
- Chasing for service routes can be carried out using a power routing tool.

Fixings :

- Karphosit Blocks can be fixed to timber supports or crosswalls with nails or screws.

Site Notes

- Karphosit Blocks should be stacked flat until ready for use to avoid damage to edges.
- They should be stored off the ground, protected from damp.

Health and Safety

- There is minimal risk from dust when Karphosit Blocks are cut.

Environmental Impact

For a full environmental assessment of this product refer to NBT Environmental Assessment Sheet.

Further information on this product can be obtained by contacting NBT direct.

If you have any questions or queries please do not hesitate to contact Womersley's Limited on Tel 01924 400651 or call in at our workshop.