Product Data

Lignacite Fibo Block

Description

Lignacite Fibo is an ultra lightweight concrete block manufactured from expanded clay aggregates and a mixture of other naturally occurring raw materials and cement. The clay aggregate is produced from carefully selected clays which through heat expansion are bloated to create a low density porous aggregate with numerous cavities. This is what makes Fibo blocks so incredibly light and thermally efficient

Appearance

Fibo blocks are available in solid form, 440m x 215mm face size, and have an open textured surface which is ideal for applying plaster and render.

Advantages

High thermal insulation

- Reduces the need for added insulation to be used to meet current energy standards.
- Overall wall thickness reduced compared to when using denser blocks

Fireproof

- Fire resistance up to 2 hours for 100mm loadbearing walls
- Non-combustible conforming to Class A1 – the highest class.

Lightweight

- Easy to handle, meets CDM requirements for manual handling
- Easy to transport on site
- Reduced dead load in multi-storey buildings

Good Workability

- Easy to cut, reducing wastage on site
- Strong background for holding fixings securely
- Open texture provides a good
- mechanical key for applying plaster, render and tiling
- No bonding agents required

Standards

Fibo blocks are BSI Kitemarked conforming to BS EN 771-3. They are Category 1 masonry units and are manufactured under a BSI certified Quality System complying with BS EN 9001.

Design

The design of walls incorporating Fibo blocks should be in accordance with BS 5628-Parts 1, 2 and 3, or relevant European design ,and the requirements of Building Regulations.

Uses

Fibo blocks are suitable for use in commercial and housing projects including extensions. They can be used to construct the inner and outer leaves of external cavity walls and internal walls. They can also be used below ground to the inner leaf of external cavity walls and interior walls.

Sustainability

Responsible sourcing

Lignacite Ltd. operates its manufacturing plants to a BSI certified Environmental Management System (EMS) complying with ISO14001. An EMS is also held by our key supply chain processes, as specified in the *Responsible sourcing* assessment criteria of BREEAM and the Code for Sustainable Homes. This level of responsible sourcing assurance can contribute towards the required BREEAM rating or Code assessment.

Environmental ratings

Summary green guide ratings applicable to Fibo blocks can be obtained from the BRE Green Guide to Specification.

Technical Properties

Face Size	440mm x 215mm
Dimensional Tolerances	Category:D1
Mean Unit Strength	3.6N/mm^2
Net Dry Density	890 kg/m^3
Thermal Conductivity (W/mK)	Internal 0.31 External 0.38
Moisture Movement	<0.8mm/m
Reaction to Fire	Class A1

Technical Performance

Block weights - Table 1

Width (mm)	Form	Unit weight (kg)	Laid weight (kg/m^2)
100	Solid	8.7	98
140	Solid	12.2	136

Note. Weights are based on 3% moisture content by weight.

Thermal Resistances - Table 2

Width (mm)	Form	Thermal Resistance (m^{2}K/W) 3%	5%
100	Solid	0.32	0.29
140	Solid	0.45	0.41

Note. 3% moisture should be used for protected locations such as the inner leaf, and 5% for exposed locations such as the outer leaf when rendered.

Sound reduction - Table 3

Width (mm)	Form	Sound Reduction Index, Rw (dB) L/weight plaster	Dry lined
100	Solid	39	38
140	Solid	41	40

Note. The above values are estimated values for single leaf walls based on the mass law, and assume surface finishes are applied to both wall faces.

Fire Resistances - Table 4

Width (mm)	Form	Fire Resistance (hours) Loadbearing	Non Loadbearing
100	Solid	2	2
140	Solid	3	4

Note. The above values are for single leaf walls no finish.

Surface Finish Recommendations

Drylining

Application to be as manufacturer's recommendations.

Dense Plaster

Apply either 1:1:6 cement:lime:sand or 1:4 ½ Masonry cement:sand or 1;5 ½ cement;sand and plasticiser.
Alternatively: Thistle bonding or Thistle Hardwall or Knauf Ultimate backing plaster.

Finishing Coats

Thistle plaster finish or Thistle multi-finish or Knauf Multi cover.

External Rendering

Rendering to be in accordance with BS EN 13914-1. Avoid over strong mixes. Ensure the first coat of render is applied to a greater thickness than successive coats.

Movement Control

Movement joints should be considered in accordance with BS 5628-3 at approximately 6.0 metre spacings. In areas of concentrated stress, such as those above and below openings, consideration should be given to the use of bed joint masonry reinforcement.

Mortar

The mortar type for work above ground level should be designation (iii) / Compressive Class M4. Stronger mixes may be required for work below ground in accordance with BS 5628-3.

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