LIGNACITE
Concrete Masonry Products

FIBO 850 COMMODITY BLOCKS

Ultra lightweight, loadbearing units, suitable for general purpose walling applications. Ideal for use in housing and extensions.

General Properties - Table 1

Face Size	440mm x 215mm	
Dimensional Tolerances	Category: D1	
Mean Unit Strength	3.6N/mm^2	
Net Dry Density	850 kg/m^3	
Thermal Conductivity @ 3% moisture content	Internal: 0.31W/mK	External: 0.38W/mK
Moisture Movement	<0.8mm/m	
Reaction to Fire	Class A1	
Configuration	Solid Blocks: Group 1	

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- High thermal insulation reducing the amount of added insulation required to comply with energy efficiency standards
- Lightweight, making Fibo 850 an easy to handle - one-hand lift - and quick to lay
- Good background for direct application of plasters and renders - no bonding agents required.
- Fixings can be easily made and held securely. Ideal background for direct nailing
- High levels of fire protection - up to 2 hours for 100mm loadbearing walls

Fibo 850 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 850 so incredibly light and thermally efficient.

Appearance

Fibo 850 has an open textured surface which is ideal for applying plaster and render.
It has a face size of 440mm x 215mm in 100mm and 140mm widths and is produced in solid form only.

Standards

Fibo 850 blocks are BSI Kitemarked approved to BS EN 771-3. They are Category 1 masonry units manufactured under a BSI certified Quality System complying with BS EN 9001.

Applications

Fibo 850 is suitable for use in housing and extension projects. It can also be used to construct walls in other buildings where there is a requirement to specifiy blockwork with a low self-weight, eg., partition walls on floor slabs.

Fibo 850 can be considered for use in the following locations:

- Inner and outer leaves of external cavity walls
- Internal walls, including fire break walls
- Internal walls below ground, such as the inner leaf of external cavity walls and interior walls

For use in separating walls meeting the requirements of Part E of the Building Regulations, we recommend the use of products from the Ashlite, Lignacite or Lignacrete ranges.

Sustainability

Responsible sourcing - Lignacite Ltd operates its manufacturing plants to a BSI certified Environmental Management System (EMS) complying with ISO14001. Lignacite Ltd. complies with the requirements of BES 6001 – Framework Standard for the Responsible Sourcing of Construction Products, Certificate No: BES 580823. This independently confirmed Responsible Sourcing Certification provides re-assurance to our customers that they are procuring products responsibly and sustainably. Credits can also be gained under environment assessment schemes such as BREEAM and the Code for Sustainable Homes.

Environmental ratings - Summary green guide ratings applicable to Fibo 850 blocks can be obtained from the BRE Green Guide to Specification.

Design

The design of walls incorporating Fibo 850 should be in accordance with relevant design standards including BS 8103: Parts 2 and BS EN 1996-1-1 and the requirements of the Building Regulations.

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. Ensure the first coat of render is applied to a greater thickness than successive coats. Builders considering the use of proprietary single coat render systems must exercise caution to accurately adhere to the render manufacturers' design and specification guides. Furthermore, during application, strictly adhere to the specific and expansive application instructions, paying particular attention to prevailing weather conditions applied thereto. PLEASE NOTE that traditional rendering applications are not so seasonally and conditionally demanding.

Movement Control

Movement joints should be considered in accordance with PD 6697 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 used only with the permission of the designer. Stronger mixes may also be required for work below ground in accordance with PD 6697.

Block Weights - Table 2

Width (mm)	Form	Unit Weight (kg)	Laid Weight (kg/m²)
100	Solid	8.7	98
140	Solid	12.2	143

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

Thermal Resistances - Table 3

		Thermal Resistance (m² K/W)	
Width (mm)	Form	3% m/c	5% m/c
100	Solid	0.32	0.29
140	Solid	0.45	0.41

Note: 3% moisture content (m/c) 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 4

		Sound Reduction Index Rw (dB)	
Width (mm)	Form	L/tweight Plaster	Dry Lined
100	Solid	39	38
140	Solid	41	40

Note: 1. The Above values are based upon technical assessments and test to BS EN ISO 140-3.
Note: 2. Surface finishes are assumed to be applied to both wall surfaces.

Fire Resistances - Table 5

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

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

Accreditations

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