

Product Data

Description

Lignacite concrete blocks comprise a range of medium density loadbearing units, generally of 440mm x 215mm face size, used in internal and external walls and are manufactured from cement, sand, and lightweight aggregates. Lignacite blocks are medium grey in colour with a fine surface texture, providing exceptional fire and sound resisting qualities. Lignacite blocks are available as:

Lignacite, in standard sizes and forms:

- >**Standard** - Suitable for locations where the surface will not be seen e.g. plastered, below ground.
- >**Paint-Grade** - Suitable for locations where a consistent close textured face is required as a background for direct painting.
- >**Fair-Faced** - Suitable for locations where a consistent colour and close textured face is required. (When ordering please state blocks are being used as Fair faced).

Lignacite SP is only available in 140mm width solid blocks. This block consists of a specially formulated mix which reduces the block density to produce a solid block under 20kg unit weight. Available as Standard, Paint-Grade, Fair faced & GP finishes. Please note there will be a slight colour difference between the traditional block and the SP.

Lignacite GP is only available in 100mm and 140mm solid form. These units have a striated face to provide a good key for plastering and rendering.

Appearance

Lignacite blocks are medium grey in colour with a fine surface texture.

Standards

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

Uses

Lignacite blocks are suitable for use in commercial and housing projects including extensions. Fair-faced and Paint-Grade have been used extensively for the construction of internal walls in commercial, industrial and leisure buildings. As a guide they can be used to the following locations:

- The inner and outer leaves of external cavity walls,
- Internal walls including fire break walls
- Separating walls including those conforming to Robust Detail specifications
- External and internal walls below ground (3.6N/mm² blocks are recommended below ground to internal walls including the inner leaf of external cavity walls)
- Infill units to beam and block flooring (7.3N/mm² units are normally used)

Technical Properties

Face Size	440mm x 215mm ⁽¹⁾
Dimensional Tolerances	Category:D1
Mean Unit Strength	Lignacite: 3.6, 7.3, 10.4N/mm ² Lignacite SP: 3.6, 7.3, 10.4N/mm ²
Net Dry Density	Lignacite (all strengths): 1570kg/m ³ Lignacite SP: 1450kg/m ³
Thermal Conductivity (W/mK)	Lignacite (all strengths): Internally 0.90 Externally 0.97 Lignacite SP: Internally 0.79 Externally 0.84
Moisture Movement	<0.8mm/m
Reaction to Fire	Class A1
Notes:	⁽¹⁾ Metric Modular (390 x 190mm) blocks are available to special order in 90mm, 140mm, 190mm solid form, and 190mm width hollow form.

Lignacite Range



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 Lignacite blocks can be obtained from the BRE Green Guide to Specification.

Technical Performance

Block weights - Table 1

Width (mm)	Form	Unit weight (kg)	Laid weight (kg/m ²)
75	Solid	11.1	118
90	Solid	13.4	143
100	Solid	14.9	159
100	Cellular	11.8	128
140	Solid ^(SP)	19.2	206
140	C/H	15.3	168
150	Solid	22.3	238
190	Solid	28.2	301
190	Hollow	19.0	210
200	Solid	29.7	317
215	Solid	31.9	340
215	Hollow	20.8	231

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%
90	Solid	0.100	0.093
100	Solid	0.111	0.103
100	Cellular	0.165	0.156
140	Solid ^(SP)	0.177	0.167
140	C/H	0.210	0.200
150	Solid	0.167	0.155
190	Solid	0.211	0.196
190	Hollow	0.246	0.235
200	Solid	0.222	0.206
215	Solid	0.239	0.222
215	Hollow	0.258	0.247

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	Fair faced
75	Solid	43	45	39
90	Solid	44	45	43
100	Solid	47	47	46
100	Cellular	44	45	43
140	Solid ^(SP)	51	51	48
140	C/H	49	49	47
150	Solid	52	52	51
190	Solid	54	53	53
190	Hollow	50	50	49
200	Solid	54	53	53
215	Solid	54	55	54
215	Hollow	51	51	50

Note. The above values are for single leaf walls and any surface finishes are applied to both wall faces.

Fire Resistances - Table 4

Width (mm)	Form	Fire Resistance (hours)	
		Loadbearing	Non Loadbearing
75	Solid	-	1
90	Solid	1	1.5
100	Solid	2	2
100	Cellular	-	0.5
140	Solid ^(SP)	2	4
140	C/H	-	3
150	Solid	2	4
190	Solid	2	6
190	Hollow	-	4
200	Solid	2	6
215	Solid	2	6
215	Hollow	-	6

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.

Lignacite Ltd.

High Street

Brandon

Suffolk IP27 0AX

Tel: 01842 810678

Fax: 01842 814602

E-mail: info@lignacite.co.uk

Meadgate Works

Nazeing

Waltham Abbey

Essex EN9 2PD

Tel: 01992 464441

Fax: 01992 445713



CONCRETE MASONRY PRODUCTS