

A range of fine textured, loadbearing units, suitable for facing and general purpose applications. Select from a range of sizes, strengths and grades for total design flexibility.

General Properties - Table 1

Face Size	440mm x 215mm	
Dimensional Tolerances	Category: D1	
Mean Unit Strength	3.6, 7.3, 10.4N/mm ²	
Net Dry Density	Lignacite (all strengths): 1570kg/m ³	Lignacite GP and SP: 1450kg/m ³
Thermal Conductivity @ 3% moisture content	Lignacite (all strengths): 0.90W/mK	Lignacite GP and SP: 0.79 W/mK
Moisture Movement	<0.8mm/m	
Reaction to Fire	Class A1	
Air Tightness	100mm solid (bare) - 4.17 m ³ /hr/m ²	140mm SP (bare) - 4.62 m ³ /hr/m ²
	100mm solid (painted) ² - 0.34 m ³ /hr/m ²	140mm SP (painted) ² 0.17 m ³ /hr/m ²
Configuration	Solid Blocks: Group 1, Cellular & Hollow Blocks: Group 2	

Note:

⁽¹⁾ Cellular and hollow blocks are produced in 3.6 and 7.3N/mm² strengths
⁽²⁾ Based on blocks painted to both faces



- Medium density fine textured blocks in Fair-Faced, Paint-Grade and Standard block finish
- For use internally and externally above and below ground
- High levels of air tightness, sound insulation and fire resistance.

Lignacite blocks are available in the following grades:

- **Fair-Faced.** For locations requiring a consistent colour and close textured block face. (When ordering please state blocks are for Fair-Faced use)
- **Paint-Grade.** For locations where a consistent close textured face is required as a background for direct painting
- **Standard.** For locations where the surface will not be visible eg. plastered, use below ground

Lignacite SP is available in a 140mm width solid block. It consists of a specially formulated mix which reduces the block density to produce a solid block under 20kg unit weight. It is available in all grades. There is a slight colour difference between the traditional block and the Lignacite SP. Lignacite GP has a striated face, providing an enhanced key for plastering and rendering. It is available in 100 and 140mm solid form only.

Appearance

Lignacite blocks are medium grey in colour with a fine textured surface. Lignacite GP blocks have a scratched surface. Solid, cellular, and hollow block types are available.

Standards

Lignacite 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

Lignacite blocks are suitable for use in commercial and housing projects. Fair-Faced and Paint-Grade blocks can be used to construct internal walls in commercial, industrial and leisure buildings. Lignacite blocks can be used in 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 can be used in both inner leaf and internal walls; 7.3N/mm² blocks to other locations)
- Infill units to beam and block flooring
- Fair-Faced blocks are recommended for internal use



Sound Insulation

Lignacite blockwork provides excellent levels of sound insulation between buildings and adjoining rooms. It can be used in cavity party wall constructions in dwellings, satisfying the specifications for lightweight blockwork in accordance with Approved Document E to the Building Regulations. It can also be used to construct party walls meeting Robust Detail specifications eg. Robust Details E-WM-2, 4, 8, 11,14, 17, 19, 20, 21 and 22.

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

Design

The design of walls incorporating Lignacite blocks should be in accordance with relevant design standards including BS 8103 Part 2 and BS EN 1996-1-1 and 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. An initial spatterdash coat is advisable, consisting of 1 part cement, 1 part sand, gauged with a proprietary bonding agent (SBR). 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 PP 6697.

Block Weights - Table 2

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
140	Solid ^(SP)	19.2	206
140	C/H	15.3	168
190	Solid	28.2	301
190	Hollow	19.0	210
215	Solid	31.9	340
215	Hollow	20.8	231

Note: Weights are based on 3% moisture content by weight. Lignacite GP unit and laid weights are approximately 8% lower than 100mm solid blocks shown above.

Thermal Resistances - Table 3

Width (mm)	Form	Thermal Resistance (m ² K/W)	
		3% m/c	5% m/c
90	Solid	0.100	0.093
100	Solid	0.111	0.103
140	Solid ^(SP)	0.177	0.167
140	C/H	0.210	0.200
190	Solid	0.211	0.196
190	Hollow	0.246	0.235
215	Solid	0.239	0.222
215	Hollow	0.258	0.247

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

Width (mm)	Form	Sound Reduction Index Rw (dB)			
		L/tweight Plaster	Dry Lined	Paint Finish	Fair Faced
75	Solid	43	45	40	39
90	Solid	44	45	44	43
100	Solid	47	47	47	46
140	Solid ^(SP)	51	51	49	48
140	C/H	49	49	47	47
190	Solid	54	53	54	53
190	Hollow	50	50	50	49
215	Solid	54	55	55	54
200-215	2x100m leaves ⁽¹⁾	54	52	50-53	49-52
215	Hollow	51	51	51	50

⁽¹⁾ 2 leaves of 100mm solid blocks laid back to back and tied together.

Note:

1. The above values are based on technical assessments and tests to BS EN ISO 140-3.
2. Surface finishes are assumed to be applied to both wall faces.



Fire Resistances - Table 5

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

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

Accreditations

