

Uniclass L322	EPIC F611
CI/SFB (2-)	Ff5
2006	

PD3



# Product Data

# Original Facing Masonry

### Description

Lignacite Ltd Original Facing Masonry blocks, 440x215mm face size, are designed for internal or external situations combining inherent decorative appeal with strength and durability.

Manufactured from cement, sand and a portfolio of natural coloured dense aggregates with a choice of four finishes, they are available in an extensive range of widths and strengths, in solid, hollow and cellular forms.

Lignacite Ltd Original Facing Masonry blocks are available as:

**Natural**, available in all our standard sizes and forms in a choice of seven colours, suitable where crisp precision of surface finish is required.

**Weathered**, is produced by shotblasting the block, exposing the aggregates to enhance the colours and the texture. Available in all our standard sizes and forms in a choice of eight colours.

**Split**, is produced by splitting each block individually, creating a craggy and stone-like texture. Available in 100 and 140mm widths, solid form only, and in a choice of eight colours.

The nature of the splitting process limits the range of shapes available to quoins and also shapes formed by cutting and chamfering full blocks. Split face 100mm full length blocks are available with split ends. (Note: 3/4 and 1/2 length split ends are also available).

**Polished**, is produced by polishing the block to a high gloss finish, exposing the aggregates to enhance the colours.

Available in all our standard sizes and forms in a choice of nine colours.

The polishing process reduces nominal widths by approximately 3mm per polished face.

Polished facing masonry blocks can be supplied with a 'ground' matt smooth surface or planished finish.

### Uses

Suitable for use below DPC both internally and externally.

Lignacite Ltd does not recommend the use of cellular or hollow units for external use.

### Standards

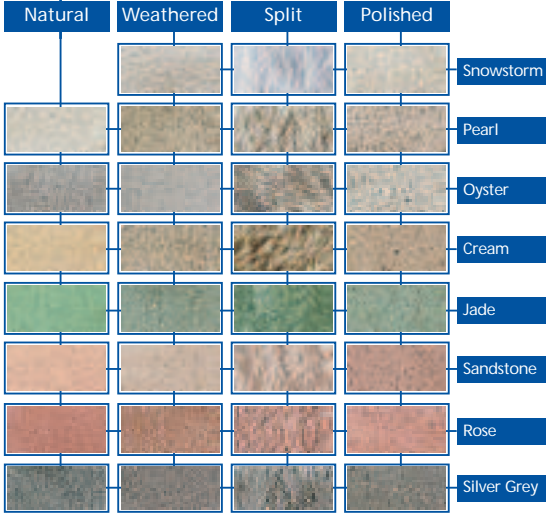
Original Facing Masonry blocks are kitemarked as conforming to BS EN 771-3 Aggregate Concrete Masonry Units. They comply to Category 1 Masonry Units and are manufactured under a comprehensive Quality Assurance Scheme assessed and certified to BS EN 9001:2000 by the BSI.

### Fire

Facing masonry units provide excellent fire resistant properties.

*\*Metric Modular (390x190mm) blocks are available to special order in 90mm, 140mm solid form, and 190mm widths in both solid & hollow form. These units are available in all finishes (Split units are only available in 95mm width).*

*Note: Low Height Units (440x140x140mm). To aid compliance with the Manual Handling Legislation whilst allowing 140mm solid dense wall to be constructed, Lignacite Ltd have introduced this unit that weights 18.2kg each. These units are available to special order in all finishes.*



### Dimensional Tolerances

Category:	D1
(Closer tolerances available on request)	
Flatness of surface:	<2mm
(only applicable to natural and polished facing units)	

### Mean Unit Strength

Original Facing Masonry:	17.5 N/mm <sup>2</sup> Solid form 7.3 N/mm <sup>2</sup> C/H
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### Net Dry Density

Original Facing Masonry:	2100kg/m <sup>3</sup>
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### Thermal Conductivity (W/mK)

Original Facing Masonry:	Internally 1.46
Based on tabulated values from BS EN 1745	Externally 1.56

### Water Vapour Diffusion Coefficient μ

Original Facing Masonry:	5/15
Based on tabulated values from BS EN 1745	

### Moisture Movement

Original Facing Masonry:	<0.6mm/m
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### Water Absorption by Capillarity

Original Facing Masonry:	<100g/m <sup>2</sup> /S <sup>0.5</sup>
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### Reaction to Fire

Classification:	A1
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### Durability

Based on tabulated values from BS 5628-3 table 12	Frost resistant
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### Bond Strengths

Based on tabulated values from BS EN 998-2 Annex C	0.15N/mm <sup>2</sup>
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For information about shapes, see section PD10. For details of Hollow and Cellular blocks, see fig DC7 in Design Section. For information about the characteristic compressive strength of masonry fk, see section DC8.

# Product Data

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**Thermal Resistance - Table 1**

Width (mm)	Form	Thermal Resistance (m <sup>2</sup> K/W)	
		3%	5%
75	Solid	0.051	0.048
90	Solid	0.062	0.058
100	Cellular	0.117	0.112
100	Solid	0.068	0.064
140	C/H	0.153	0.147
140	Solid	0.096	0.090
150	Solid	0.103	0.096
190	Hollow	0.184	0.177
190	Solid	0.130	0.122
200	Solid	0.137	0.128
215	Hollow	0.196	0.188
215	Solid	0.147	0.138

**Unit Weights - Table 2**

Width (mm)	Form	Unit Weight (kg)	Weight laid inc Mortar (kg/m <sup>2</sup> )
90	Solid	17.9	187
100	Cellular	16.3	173
100	Solid	19.9	208
140	C/H	21.0*	224
140	Solid	27.8	291
150	Solid	29.8	312
190	Hollow	25.0	269
190	Solid	37.7	395
200	Solid	39.7	416
215	Hollow	27.5	297
215	Solid	42.7	447

\*A thin wall cellular unit is available below 20kg to special order.

**Fire Resistances (hrs) - Table 3\***

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

\*Based upon single leaf with no finish

**Sound Absorption - Table 5**

Frequency (Hz)	Sound absorption coefficient $a_p$
125	0.05
250	0.05
500	0.10
1000	0.15
2000	0.10
4000	0.10
Weighted Sound Absorption Coefficient $a_w$	0.15
Classification of Sound Absorption	Class E

Sound Absorption coefficient ( $a_p$ ) measurements of 100mm thicknesses of Lignacite were made in the AIRO acoustics Laboratory. The measurements were made in 1/3 octave bands from 100Hz to 5000Hz in accordance with BS EN 20354: 1993.

From the results of the measurements the octave band Practical Sound Absorption Coefficient ( $a_p$ ), single figure Weighted Sound Absorption Coefficient ( $a_w$ ) and Sound Absorption Class have been determined in accordance with BS EN ISO 211654:1997.

Key: C/H=Cellular or Hollow

## Surface Finish Recommendations

- Fair faced work**  
Natural blocks have one face and one end finished. All other facing masonry blocks have one face only finished. **Where Polished and Weathered block ends are exposed, these should be specified to be supplied finished face and end.** Full length, split face and end blocks are available to order in 100mm only.
- Cleaning**  
Facing masonry blocks are naturally durable and maintain their appearance with simple cleaning techniques, even in conditions of hard use. Contact Lignacite for information about specific cleaning recommendations, should this be necessary. See also SW4 from the Sitework section.

## Where back of block is to be treated

- Drylining**  
Application to be as manufacturer's recommendations.
- Dense Plaster**  
Rake-back joints and apply stipple coat.  
Apply either 1:1:6 cement:lime:sand or 1:4 1/2 masonry cement:sand or 1:5 1/2 cement:sand & plasticiser or designation Class III render.  
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**  
To be in accordance with BS 5262: 1991.

**Sound Insulation  $R_w(C;Ctr)$  dB - Table 4**

Width (mm)	Form	Sound Insulation $R_w(C;Ctr)$ dB			
		Lightweight Plaster	Dense Plaster	Dry lined	Fair faced
75	Solid	-	-	-	42(-1;-4)
90	Solid	-	-	-	48(-1;-4)
100	Cellular	-	-	-	48(-1;-4)
100	Solid	-	-	-	49(-1;-4)
140 <sup>†</sup>	C/H	-	-	-	50(-1;-4)
140 <sup>†</sup>	Solid	-	-	-	53(-1;-4)
150	Solid	-	-	-	53(-1;-4)
190	Hollow	-	-	-	52(-1;-5)
190	Solid	-	-	-	55(-1;-5)
200	Solid	-	-	-	56(-1;-5)
215	Hollow	-	-	-	54(-1;-5)
215	Solid	-	-	-	58(-1;-5)