

Masterblock Masterlite® Pro



A range of high strength, robust, load bearing units for use in either internal or external walls.

- Available in solid format with a standard strength of 3.6N/mm² and 7.3N/mm²
- 10.4 N/mm² blocks are available subject to order
- Masterlite Pro blocks are available in standard and paintgrade finishes for various applications and total flexibility.

Applications

Suitable for use above and below dpc both internally (3.6 N/mm²) and externally (7.3 N/mm² and 10.4 N/mm²).

Units of 7.3 N/mm² are suitable for use in beam and block floors.

Standard - Suitable for locations where the surface will not be seen i.e. plastered or rendered.

Paintgrade - (7.3 N/mm²) Suitable for locations where a consistent close textured face is required, suitable for direct decoration (note only one face and one end guaranteed).

Performance

Dimensional tolerances

Category D1

Mean unit strength:

Solid 3.6 - 10.4 N/mm²

Net dry density:

All strengths 1450 kg/m³

Thermal conductivity (W/mK):

All strengths Internal 0.57
External 0.61

Based on tabulated values from BS EN 1745

Water vapour diffusion coefficient:

All strengths 5/15

Based on tabulated values from BS EN 1745

Moisture movement:

All strengths <0.8mm/m

Reaction to fire:

Classification to EN 13501-1 A1

Durability:

Based on tabulated values in accordance with table 15, PD 6697:2010 3.6 N/mm² not to be exposed
7.3 N/mm² (frost resistant)

Bond strengths:

Based on tabulated values from BS EN 998-2 Annex C 0.15 N/mm²

Masterlite Pro

Size (mm)	440x215	440x215	440x215
Thickness (mm)	75	100	140
Density (kg/m ³)	1450	1450	1450
Weight	10.6	14.1	19.8
Units/m ²	9.88	9.88	9.88
Colour	Natural	Natural	Natural
Finish	Std and P/G	Std and P/G	Std and P/G

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Table 1 - Thermal resistance

Width (mm)	Density	Thermal resistance (m ² K/W)	
		3%	5%
75	Solid	0.132	0.123
100	Solid	0.175	0.164
140	Solid	0.246	0.230
190	Solid	0.333	0.311
215	Solid	0.377	0.352

Table 2 - Unit weights

Width (mm)	Form	Unit weight* (kg)	Built weight (kg/m ²)
100	Solid	14.1	151
140	Solid	19.8	212
190	Solid	26.8	287
215	Solid	30.4	326

Based upon 3% moisture content by volume.

Table 3 - Fire resistance (hours)

Width	Form	Fire resistance (hours)	
		Load bearing	Non load bearing
75	Solid	N/A	1
100	Solid	2	2
140	Solid	2	3
190	Solid	2	4
215	Solid	2	6

Above values assume worst case, class 2 aggregate, single leaf, no finishes.
(based upon BS5628 - 3)

Table 4 - Sound insulation*

Width	Form	Rw dB
75	Solid	40
100	Solid	42
140	Solid	44
190	Solid	46
215	Solid	46

*Based upon mass law calculation assuming plastered or painted both sides.

Table 5 - Characteristic strength f_k factors (N/mm²)

Width	Form	Compressive strength of units		
		3.6	7.30	10.50
75	Solid	3.5	6.40	8.20
100	Solid	3.5	6.40	8.20
140	Solid	2.90	5.34	6.84
190	Solid	2.38	4.41	5.66
215	Solid	2.21	4.11	5.27

Values based upon BS5628 - 1, assuming M4/type III mortar.

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Manufacturing standards

The Masterlite Pro range, are produced in accordance with BS EN 771-3 and complies with Assessment and Verification of Constancy of Performance (AVCP) level 4, Category II masonry unit.

All Aggregate Industries' products are manufactured in accordance with ISO 9001 with factory compliance to ISO 14001.

Sustainability and local sourcing

Energy use: Aggregate Industries is at the forefront of sustainability and has committed to reduce carbon emissions by 20% by 2016 based on a 2012 base line.

Recyclable: 100% of the product can be recycled thus reducing the amount of material that is sent to landfill.

Manufacturing location: produced in the UK, with locally sourced materials under strict environmental and social legislation, for local supply.

Responsible sourcing: Aggregate Industries is the first company in the world to achieve a BES 6001:2008 Responsible Sourcing Certificate from BRE Global. Products are assessed on:

- quality management
- environmental management
- health and safety management
- greenhouse gas emissions
- minimising raw material usage
- labour practice
- biodiversity
- community engagement.

Generic Green Guide rating

Outer leaf	Inner leaf	Finish and relevant green guide rating	
		Plaster	Plasterboard
and paint	and paint		
Brick	Masterlite Pro	A+	A+
Render on Masterlite Pro	Masterlite Pro	A+	A+
OPC/Lime render on Masterdenz	Masterlite Pro	A+	A+

Ratings based upon generic green guide values (2009) supplied by BRE Global Ltd, www.thegreenguide.co.uk

Key aggregate and recycled content

Locally sourced aggregates.

Policies

Aggregate Industries' policies on the environment and community, health and safety and sustainable solutions for different product applications can be viewed on our website www.aggregate.com

Installation standard

Plastering/rendering: Masterlite blocks provide a moderate to low suction background and require the joints to be raked back and a spatter dash coat applied prior to rendering. When plastering, either carlite bonding or hardwall plaster or similar should be used.

Health and safety: Manual handling legislation and guidance given in construction sheet number 37, for repetitive manual handling recommends units below 20kg should be considered.

Maintenance and cleaning

Aggregate Industries can supply on request advice on general maintenance.

COSHH data

Full COSHH data on the Masterblock range of products is available on request. Please call the technical helpline on 01285 646800.

Technical support

Detailed guidance and assistance with the preparation of specification and use of the Masterblock range of products is available through the sales office. A free technical design service is also available.

For further information, please refer to our technical services on 01285 646800.

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