

Masterblock Masterlite® Ultra



A low weight block designed for thermal efficiency and manual handling considerations.

- A range of lightweight, robust, load bearing units manufactured using Class 1 aggregate for fire resistance
- Provides an excellent key for plastering and rendering
- Masterlite Ultra was developed specifically to be used as a one handed lift
- Available in solid format.

Applications

Suitable for use above and below dpc internally and above dpc externally. These units are not tested for transverse loading and as such, are NOT suitable for beam and block flooring.

Masterlite Ultra blocks cannot be used in party walls and are restricted for use in flanking wall types E-WM-2, E-WM-4 and E-WM-11 (medium density) when using robust details.

- **Standard** – Suitable for locations where the surface will not be seen, ie plastered or rendered.

Manufacturing standards

The range is manufactured using a semi-dry process and is compliant to European Standard BS 771-3 and complies with Assessment and Verification of Constancy of Performance (AVCP) system 4, Category II masonry unit.

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

Performance

Dimensional tolerance

Category D1

Mean unit strength:

Solid 3.6 N/mm²

Net dry density:

850 kg/m³

Thermal conductivity:

Internal 0.27 W/mK

External 0.29 W/mK

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

<0.8mm/m

Reaction to fire:

Classification to EN 13501-1 A1

Durability:

Based on tabulated values in accordance with table 15, PD6697:2010 - Not to be left exposed

Bond strength:

0.15N/mm²

Based on tabulated values from BS EN 998-2 Annex C

Masterlite Ultra

Size (mm) 440x215

Thickness (mm) 100

Density (kg/m³) 850

Weight (kg) 6.28

Units/m² (approx) 9.88

Colour available Natural

Finish Standard

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Table 1 - Thermal resistance

Width (mm)	Density	Thermal resistance (m ² K/W)	
		3%	5%
100	solid	0.370	0.345
190#	solid	0.704	0.655

Table 2 - Unit weights

Width (mm)	Form	Unit weight* (kg)	Built weight (kg/m ²)
100	solid	8.28	94
190#	solid	15.74	178

*based upon 3% moisture content by weight.

Table 3 - Fire resistance (hours)

Width	Form	Load bearing	Non load bearing
100	solid	2	4
190#	solid	6	6

*Above values assume, single leaf, 13mm plaster both sides (based upon BS5628 – 3, table 14).

Table 4 - Sound insulation*

Width	Form	Rw dB
100	solid	39
190#	solid	43

*Based upon mass law calculation, assuming plaster both sides

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

Width	Form	Compressive strength of Units (N/mm ²) 3.6
100	solid	3.5
190#	solid	2.38

To special order only.

Based upon BS 5628 pt 1, M4 / Type III mortar.

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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.

Key aggregate and recycled content

Locally sourced aggregates.

Generic Green Guide ratings

Outer leaf	Inner leaf and paint	Finish and relevant green guide rating	
		Plaster and paint	Plasterboard
Brick	Ultra	A+	A+
Render on Ultra	Denz	A+	A+
Render on Denz	Ultra	A+	A+

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

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 Ultra blocks provide a moderate suction background and due to its granular texture, can receive render directly. When plastering, either carlite browning or hardwall plaster or similar should be used.

Health and safety: Masterlite Ultra can be specified upto and including 190mm thick and still comply with the HSE guidance contained in construction sheet 37, which recommends restricting block weights to 20kg or below for repetitive laying of masonry units.

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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