

Concrete blocks

Masterblock Enviroblock™



Life®

73%[†] non-primary materials



Dense and lightweight density blocks containing a minimum of 73% recycled/secondary aggregates.

- Environmentally engineered to meet the demands of today's society
- 73% minimum recycled/secondary aggregate content
- Raw materials used are specifically selected for their environmental performance and the products comply with all European and UK technical standards
- For use internally and externally.

Applications

Suitable for use above and below dpc, both internally and externally.

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

Paintgrade - Suitable for locations where a consistent close textured face is required, suitable for direct decoration (note only one face and one end guaranteed) manufactured on a made to order basis.

Manufacturing standards

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

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

† Represents non-primary material within the complete mix design.

Dense block 73%
Lightweight block 73%

Performance

Dimensional tolerances

Category D1

Mean unit strength:

Solid: 7.3 and 10.4 N/mm²

Net dry density:

Enviroblock Dense 1950 kg/m³

Enviroblock Lightweight 1450 kg/m³

Thermal conductivity (W/mK):

Enviroblock Dense Internal 1.06

External 1.14

Enviroblock Lightweight Internal 0.57

External 0.61

Based on tabulated values from BS EN 1745

Water vapour diffusion coefficient μ :

All 5/15

Based on tabulated values from BS EN 1745

Moisture movement:

All strengths <0.6mm/m

Reaction to fire:

Classification to EN 13501-1 A1

Durability:

Based on tabulated values in accordance with table 15, PD 6697:2010 (frost resistant)

Bond strengths:

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

Enviroblock

Size (mm)	440x215	440x215	290x215	440x215	440x215
Thickness (mm)	100	140	140	100	140
Density (kg/m ³)	Dense	Dense	Dense	Lightweight	Lightweight
Weight (kg)	18.73	26.22	17.28	14.13	19.78
Units/m ² (approx.)	9.88	9.88	14.8	9.88	9.88
Colour available	Natural	Natural	Natural	Natural	Natural
Finish	Std, P/G	Std, P/G	Std, P/G	Std, P/G	Std, P/G

Std - Standard / P/G -Paintgrade

*Meets the requirements of special category manufacturing control.

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Table 1 - Thermal resistance

Width (mm)	Density	Form	Thermal Resistance (m ² K/W)	
			3%	5%
100	Dense	Solid	0.094	0.088
140	Dense	Solid	0.132	0.123
140 Midi	Dense	Solid	0.132	0.123
100	Lightweight	Solid	0.175	0.164
140	Lightweight	Solid	0.246	0.230

Table 2 - Unit weights

Width (mm)	Density	Form	Unit Weight*	
			(kg)	Built Weight (kg/m ²)
100	Dense	Solid	18.73	197
140	Dense	Solid	26.22	276
140 Midi	Dense	Solid	17.28	275
100	Lightweight	Solid	14.13	151
140	Lightweight	Solid	19.78	212

Based upon 3% moisture content by volume.

Table 3 - Fire resistance (hours)

Width	Density	Form	Fire Resistance (hours)	
			Load bearing	Non load bearing
100	Dense	Solid	2	2
140	Dense	Solid	2	3
140 Midi	Dense	Solid	2	3
100	Lightweight	Solid	2	2
140	Lightweight	Solid	2	3

Based upon BS 5628-3:2005 table 14, single leaf, no finishes.

Table 4 - Sound insulation*

Width	Density	Form	Sound Insulation (dB)	
			Rw	Rw + C
100	Dense	Solid	43	43
140	Dense	Solid	45	45
140 Midi	Dense	Solid	45	45
100	Lightweight	Solid	42	42
140	Lightweight	Solid	44	44

Based upon mass law calculation assuming plastered painted both sides.

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 accreditation to the BES 6001 Framework Standard for the Responsible Sourcing of Construction Products. Aggregate Industries has achieved an 'Very Good' rating for major product groups. The BES 6001 standard assesses:

- quality management
- environmental management
- health and safety management
- a range of social and environmental issues.

Life

Life is our range of sustainable products and services. For more information please visit www.aggregate.com/life



Masterblock Enviroblock™

Key aggregate and recycled content

73% minimum recycled/secondary aggregate content chosen specifically for their environmental performance.

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

Enviroblock units 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 Hardwell Plaster or similar should be used.

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.

Generic Green Guide ratings for external cavity walls**

Outer leaf	Inner leaf	Finish and relevant green guide rating	
		Plaster and paint	Plasterboard and paint
Brick	Dense Enviroblock	A+	A+
Brick	Lightweight Enviroblock	A+	A+
*Render on dense Enviroblock	Lightweight Enviroblock	A+	A+
*Render on lightweight Enviroblock	Dense Enviroblock	A+	A+
*Render on lightweight Enviroblock	Lightweight Enviroblock	A+	A+

** Based upon the generic green guide April 2009

* Assumes the use of OPC/Lime mortar and OPC/Lime render

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

Health and safety

Enviroblock is available in both Lightweight and Midi format, to meet the requirements of the manual handling regulations.

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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