

Table 1 - Thermal resistance

Width (mm)	Density	Thermal resistance (m ² K/W)	
		3%	5%
75	Solid	0.069	0.065
100	Solid	0.093	0.087
100	Cellular	0.130	0.124
140	Solid	0.130	0.122
140	Multi cellular	0.245	0.236
Midi	Solid	0.130	0.122
190	Solid	0.176	0.165
215	Solid	0.199	0.187
215	Hollow	0.231	0.222

Table 2 - Unit weights

Width (mm)	Form	Unit weight* (kg)	Built weight (kg/m ²)
75	Solid	14.11	148
100	Solid	18.83	198
100	Cellular	14.87	154
140	Solid	26.35	277
140	Multi cellular	19.20	206
Midi	Solid	17.37	277
190	Solid	35.77	376
215	Solid	40.47	425
215	Hollow	25.09	273

Based upon 3% moisture content by volume.

Table 3 - Fire resistance (hours)

Width	Form	Load bearing	Non load bearing
75	Solid	N/A	1
100	Solid	2	2
100	Cellular	N/A	0.5
140	Solid	2	3
140	Multi cellular	N/A	3
Midi	Solid	2	3
190	Solid	2	4
215	Solid	2	6
215	Hollow	N/A	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	41
100	Solid	43
100	Cellular	42
140	Solid	45
140	Multi cellular	44
Midi	Solid	45
190	Solid	47
215	Solid	48
215	Hollow	45

*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			
		7.30	10.50	17.50	22.50
75	Solid	6.40	8.20	10.10	12.00
100	Solid	6.40	8.20	10.10	12.00
100	Cellular	6.10	7.10	N/A	N/A
140	Solid	5.34	6.84	8.44	10.01
140	Multi cellular	5.14	6.10	N/A	N/A
Midi	Solid	5.34	6.84	8.44	10.01
190	Solid	4.41	5.66	7.00	8.28
215	Solid	4.11	5.27	6.53	7.71
215	Hollow	4.03	4.96	N/A	N/A

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

Masterblock Masterdenz®

Manufacturing standards

The Masterdenz range is produced in compliance 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 and paint	Plasterboard and paint
Brick	Masterdenz dense	A+	A+
Render on Masterdenz dense block	Medium dense EnviroBlock	A+	A+
Render on medium dense EnviroBlock	Masterdenz dense	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: Masterdenz 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 recommend units below 20kg should be considered. Masterblock produces a 140mm thick midi unit (290mm long), which are below 20kg.

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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