



Masterdenz® is a range of high strength, dense, robust, load-bearing concrete blocks for internal and external walls. It offers a block for every situation, with solid, hollow, cellular, and midi formats in a variety of sizes, strengths, and finishes.

FEATURES & BENEFITS

- ▶ Available in solid, hollow, midi, and cellular formats with strengths ranging from 7.3 N/mm² - 22.5 N/mm² to suit all site requirements.
- ▶ High strength blocks up to 22.5 N/mm² are available subject to order to suit your exact specification.
- ▶ Standard finish provides an excellent key for plastering and rendering.
- ▶ Complies with Robust Details® to meet Part E (Resistance to the passage of sound) of Building Regulations, so no on-site testing is required.

APPLICATIONS

- ▶ Can be used internally or externally, above and below damp proof course.
- ▶ Standard finish is ideal for locations where the surface will not be seen, i.e. plastered or rendered.
- ▶ Solid units can be used in block and beam floors.
- ▶ Paintgrade blocks available for where a consistent close-textured face is required, suitable for direct decoration (one end and one face guaranteed).

COMPLEMENTARY PRODUCTS

- ▶ Masterdenz Coursing Bricks
- ▶ Holcim Cement
- ▶ Holcim Mortar

Environmental Product Declarations are available. Speak to your sales representative or call our technical department for details.

TECHNICAL DATA

Block Type		Solid	Solid	Solid	Solid
Face Size (mm)		440x215	440x215	440x215	440x215
Thickness (mm)		75	90	100	140
Dimensional Tolerances		D1	D1	D1	D1
Mean Unit Strength (N/mm²)		7.3	7.3	7.3 - 22.5	7.3 - 22.5
Net Dry Density (kg/m³)		1960	1960	1960	1960
Thermal Conductivity (W/mK) Based on tabulated values from BS EN 1745	Internal	1.08	1.08	1.08	1.08
	External	1.15	1.15	1.15	1.15
Thermal Resistance (m²K/W)	3% Moisture	0.069	0.083	0.093	0.130
	5% Moisture	0.065	0.078	0.087	0.122
Sound Insulation (Rw dB) Based upon mass law calculation, assuming plaster both sides		41	42	43	45
Fire Resistance (hrs) Based on data from NA to EC6 Part 1-2, single leaf walls with no finishes. Assumed <1.0 of the permitted load capacity is being used	Load-bearing	N/A	1.5	2	3
	Non load-bearing	2	2	4	>4
Reaction to Fire Classification to EN 13501-1		Class A1	Class A1	Class A1	Class A1
Moisture Movement (mm/m)		<0.6	<0.6	<0.6	<0.6
Water Vapour Diffusion Coefficient μ Based on tabulated values from BS EN 1745		5/15	5/15	5/15	5/15
Durability Based on tabulated values in accordance with table 15, PD 6697:2010		Frost Resistant	Frost Resistant	Frost Resistant	Frost Resistant
Bond Strengths (N/mm²) Based on tabulated values from BS EN 998-2 Annex C		0.15	0.15	0.15	0.15
Mortar Designation	Class iii for walls above DPC	1:1:6 Cement:Lime:Sand 1:5 to 6 Cement:Sand	1:1:6 Cement:Lime:Sand 1:5 to 6 Cement:Sand	1:1:6 Cement:Lime:Sand 1:5 to 6 Cement:Sand	1:1:6 Cement:Lime:Sand 1:5 to 6 Cement:Sand
	Class ii for walls below DPC	-	-	1:1/2:4 Cement:Lime:Sand 1:3 to 4 Cement:Sand	1:1/2:4 Cement:Lime:Sand 1:3 to 4 Cement:Sand

TECHNICAL DATA

Block Type		Solid	Solid	Midi	Cellular
Face Size (mm)		440x215	440x215	440x140	440x215
Thickness (mm)		190	215	140	100
Dimensional Tolerances		D1	D1	D1	D1
Mean Unit Strength (N/mm²)		7.3	7.3 - 10.4	7.3 - 10.4	7.3
Net Dry Density (kg/m³)		1960	1960	1960	1960
Thermal Conductivity (W/mK) Based on tabulated values from BS EN 1745	Internal External	1.08 1.15	1.08 1.15	1.08 1.15	0.649 -
Thermal Resistance (m²K/W)	3% Moisture 5% Moisture	0.176 0.165	0.199 0.187	0.130 0.122	0.154 -
Sound Insulation (Rw dB) Based upon mass law calculation, assuming plaster both sides		47	48	45	43
Fire Resistance (hrs) Based on data from NA to EC6 Part 1-2, single leaf walls with no finishes. Assumed <1.0 of the permitted load capacity is being used	Load-bearing Non load-bearing	3 >4	3 >4	3 >4	N/A 1
Reaction to Fire Classification to EN 13501-1		Class A1	Class A1	Class A1	Class A1
Moisture Movement (mm/m)		<0.6	<0.6	<0.6	<0.6
Water Vapour Diffusion Coefficient μ Based on tabulated values from BS EN 1745		5/15	5/15	5/15	5/15
Durability Based on tabulated values in accordance with table 15, PD 6697:2010		Frost Resistant	Frost Resistant	Frost Resistant	Frost Resistant
Bond Strengths (N/mm²) Based on tabulated values from BS EN 998-2 Annex C		0.15	0.15	0.15	0.15
Mortar Designation	Class iii for walls above DPC	1:1:6 Cement:Lime:Sand 1:5 to 6 Cement:Sand	1:1:6 Cement:Lime:Sand 1:5 to 6 Cement:Sand	1:1:6 Cement:Lime:Sand 1:5 to 6 Cement:Sand	1:1:6 Cement:Lime:Sand 1:5 to 6 Cement:Sand
	Class ii for walls below DPC	1:1/2:4 Cement:Lime:Sand 1:3 to 4 Cement:Sand	1:1/2:4 Cement:Lime:Sand 1:3 to 4 Cement:Sand	1:1/2:4 Cement:Lime:Sand 1:3 to 4 Cement:Sand	1:1/2:4 Cement:Lime:Sand 1:3 to 4 Cement:Sand

TECHNICAL DATA

Block Type		Cellular	Hollow	Hollow
Face Size (mm)		440x215	440x215	440x215
Thickness (mm)		140	140	215
Dimensional Tolerances		D1	D1	D1
Mean Unit Strength (N/mm ²)		7.3	3.6	7.3 - 10.4
Net Dry Density (kg/m ³)		1960	1960	1960
Thermal Conductivity (W/mK) Based on tabulated values from BS EN 1745	Internal	0.649	1.08	1.08
	External	-	1.15	1.15
Thermal Resistance (m ² K/W)	3% Moisture	0.216	0.245	0.231
	5% Moisture	-	0.236	0.222
Sound Insulation (Rw dB) Based upon mass law calculation, assuming plaster both sides		44	44	45
Fire Resistance (hrs) Based on data from NA to EC6 Part 1-2, single leaf walls with no finishes. Assumed <1.0 of the permitted load capacity is being used	Load-bearing	3	3	3
	Non load-bearing	>4	>4	>4
Reaction to Fire Classification to EN 13501-1		Class A1	Class A1	Class A1
Moisture Movement (mm/m)		<0.6	<0.6	<0.6
Water Vapour Diffusion Coefficient μ Based on tabulated values from BS EN 1745		5/15	5/15	5/15
Durability Based on tabulated values in accordance with table 15, PD 6697:2010		Frost Resistant	Not Frost Resistant	Frost Resistant
Bond Strengths (N/mm ²) Based on tabulated values from BS EN 998-2 Annex C		0.15	0.15	0.15
Mortar Designation	Class iii for walls above DPC	1:1:6 Cement:Lime:Sand 1:5 to 6 Cement:Sand	1:1:6 Cement:Lime:Sand 1:5 to 6 Cement:Sand	1:1:6 Cement:Lime:Sand 1:5 to 6 Cement:Sand
	Class ii for walls below DPC	1:1/2:4 Cement:Lime:Sand 1:3 to 4 Cement:Sand	-	1:1/2:4 Cement:Lime:Sand 1:3 to 4 Cement:Sand

TECHNICAL DATA

Product Data	Solid 7.3 N	Solid 7.3 N	Solid 7.3 N - 22.5 N	Solid 7.3 N - 22.5 N	Solid 7.3 N	Solid 7.3 N - 10.4 N
Thickness	75	90	100	140	190	215
Unit Weight (kg) Based upon 3% moisture content by weight	14.32	16.18	19.10	26.74	36.29	41.06
Laid Weight (kg/m²)	142	170	198	277	376	425
Pack Size (m²)	8.8	8.0	7.2	4.8	4.8	4.0
Full Load Qty (m²)	167.2	152	136.8	91.2	72	60
Available Finishes	Standard	Standard	Standard Paintgrade (7.3 N & 10.4 N)	Standard Paintgrade (7.3 N & 10.4 N)	Standard	Standard

Product Data	Midi 7.3 N - 10.4 N	Cellular 7.3 N	Cellular 7.3 N	Hollow 3.6 N	Hollow 7.3 N - 10.4 N
Thickness	140	100	140	140	215
Unit Weight (kg) Based upon 3% moisture content by weight	16.39	14.23	18.00	20.30	25.10
Laid Weight (kg/m²)	265	152	194	218	273
Pack Size (m²)	72*	9.0	6.0	6.0	4.0
Full Load Qty (m²)	1440*	171	120	120	88
Available Finishes	Standard	Paintgrade	Standard Paintgrade	Standard	Standard

*Total number of blocks NOT m²

GENERIC GREEN GUIDE RATING

Outer Leaf	Inner Leaf	Plaster & Paint	Plasterboard & Paint
Brick	Masterdenz	A+	A+
Render on Masterdenz	Masterdenz	A	A+
Ratings based upon generic Green Guide values supplied by BRE Global Ltd. https://bregroup.com/products/green-guide .			

SUSTAINABILITY & LOCAL SOURCING

Energy use and greenhouse gas emissions

Holcim UK is at the forefront of sustainability and has committed to reducing both energy and greenhouse gas intensity 5% year-on-year.

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.

Circular economy

We will maximise reuse and recycle, with zero waste to landfill. We improve resource efficiency through reuse, recovery and/or recycling of waste materials in our production processes. Plus, we minimise the generation of both hazardous and non-hazardous waste.

Responsible sourcing

Holcim UK was the first UK construction company to achieve accreditation to the BES 6001 Framework Standard for the Responsible Sourcing of Construction Products.

Holcim UK has achieved a ‘Very Good’ rating for major product groups. The BES 6001 standard assesses:

- ▶ Quality Management
- ▶ Environmental Management
- ▶ Health and Safety Management
- ▶ Greenhouse Gas Emissions
- ▶ Minimising Raw Material Usage
- ▶ Labour Practice
- ▶ Biodiversity
- ▶ Community Engagement.

POLICIES

Holcim UK policies on the environment and community, health and safety and sustainable solutions for different product applications can be viewed on our website www.holcim.co.uk.

COSHH DATA

Full COSHH data on the Holcim range of products is available on request. Please call the Technical helpline on **01285 646900**.

MANUFACTURING STANDARD

The Masterdenz 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 Holcim products are manufactured in accordance with ISO 9001 with factory compliance to ISO 14001.

TECHNICAL SUPPORT

For technical support, including assistance with the preparation of specifications, speak with your sales representative or contact our technical services team via: building.products@holcim.co.uk or call **01285 646900**.

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