



BREEDON BLOCKS





A COMPREHENSIVE RANGE OF CONCRETE BLOCKS, T-BEAMS AND BUILDING PRODUCTS.

Breedon produces a full range of concrete products in Scotland at Kemnay near Aberdeen and Marybank near Stornoway.

In England, we supply a range of concrete blocks, T-beams and building products at our Naunton quarry near Cheltenham in Gloucestershire.

BREEDON EcoDenz Blocks

Dense blocks containing a minimum of 50% recycled / secondary aggregates

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BREEDON Dense Blocks

A range of high-strength, robust, load-bearing units for use in either internal or external walls in a variety of sizes, strength and finishes offering total flexibility

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BREEDON Lightweight Blocks

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

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BREEDON Block and Beam Flooring

A prestressed concrete joist suspended floor system

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DENSE BLOCKS CONTAINING A MINIMUM OF 50% RECYCLED/SECONDARY AGGREGATES.

- Environmentally engineered to meet the demands of today's society
- 50% 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

APPLICATIONS

Suitable for use above and below damp-proof course (DPC), both internally and externally.

STANDARD: Suitable for locations where the surface will not be seen, for example 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).

MANUFACTURING STANDARD

The EcoDenz range is manufactured using a semi-dry process and is compliant to European Standard BS EN 771-3 and complies with Category 1 masonry units*.

All Breedon Group products are manufactured in accordance with ISO 9001 with factory compliance to ISO 14001.

SUSTAINABILITY AND LOCAL SOURCING

ENERGY USE: Breedon Group is at the forefront of sustainability and has committed to reduce carbon emissions.

ECODENZ BLOCKS

Size (mm)	440 x 215	440 x 215	290 x 215
Thickness	100	140	140
Density (kg/m ³)	Dense	Dense	Dense
Weight (kg)	18.73	26.22	17.28
Units / m ² (approx)	9.88	9.88	14.8
Colour available	Natural	Natural	Natural
Finish	Standard	Standard	Standard

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:

Products are assessed on:

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

KEY AGGREGATES AND RECYCLED CONTENT

50% minimum recycled/secondary aggregate content chosen specifically for their environmental performance.

POLICIES

Breedon Group policies on the environment and community, health and safety and sustainable solutions for different product applications can be viewed on our website breedongroup.com

INSTALLATION STANDARD

EcoDenz 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 Hardwall Plaster or similar should be used.

MAINTENANCE AND CLEANING

Breedon Group can supply on request advice on general maintenance.

COSHH DATA

Full COSHH data on Breedon Concrete Products are available on request.

HEALTH AND SAFETY

EcoDenz is available in Midi format, to meet the requirements of the manual handling regulations.

* Meets the requirement of special category manufacturing control

ECODENZ BLOCKS

PRODUCT INFORMATION



TABLE 1 - PERFORMANCE

Dimensional tolerance Category	D1
Mean unit strength: Solid	7.3 and 10.4 N / mm ²
Net dry density: EcoDenz Dense	1959 kg/m ³
Thermal conductivity (W/mK): EcoDenz Dense (Based on tabulated values from BS EN 1745)	Internal 1.27 W/mK External 1.39 W/mK
Water vapour diffusion coefficient: All (Based on tabulated values from BS EN 1745)	5/15
Moisture movement (All strengths):	<0.6mm/m
Reaction to fire: Classification to EN 13501-1	A1
Durability (Based on tabulated values from BS 5628-3 table 12):	Frost resistant
Bond strength (Based on tabulated values from BS EN 998-2 Annex C):	0.15N/mm ²

TABLE 2 - THERMAL RESISTANCE

Width (mm)	Density	Form	Thermal resistance (m ² K/W)	
			3%	5%
100	Dense	Solid	0.079	0.073
140	Dense	Solid	0.110	0.102
140 Midi	Dense	Solid	0.110	0.102

TABLE 4 - FIRE RESISTANCE (HOURS)

Width (mm)	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

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

TABLE 3 - UNIT WEIGHTS

Width (mm)	Density	Form	Unit weight (kg)*	Built weight (kg)*
100	Dense	Solid	18.73	197
140	Dense	Solid	26.22	276
140 Midi	Dense	Solid	17.28	275

* Based upon 3% moisture content by volume

TABLE 5 - SOUND INSULATION*

Width (mm)	Density	Form	Rw dB
100	Dense	Solid	43
140	Dense	Solid	45
140 Midi	Dense	Solid	43

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

A RANGE OF HIGH-STRENGTH, ROBUST, LOAD-BEARING UNITS.

Breedon dense blocks can be used in either internal or external walls in a variety of sizes, strengths and finishes offering total flexibility.

- Available in solid and hollow format for ultimate versatility with a standard strength of 7.3N/mm²
- High-strength blocks up to 22.5N/mm² are available subject to order to your specifications
- Breedon blocks are available in standard and paintgrade finishes for various applications
- Quality assured manufacture
- For use internally and externally both above and below damp-proof course (DPC)

APPLICATIONS

Suitable for use above and below damp-proof course (DPC), both internally and externally.

STANDARD: Suitable for locations where the surface will not be seen, for example 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).

MANUFACTURING STANDARDS

Breedon Dense Blocks are manufactured using a semi-dry process and are compliant to European Standard BS771-3 and comply with Category 1 masonry units.

All Breedon Group products are manufactured in accordance with ISO 9001 with factory compliance to ISO 14001.

DENSE BLOCKS

Size (mm)	440 x 215	440 x 215	440 x 215	290 x 215
Thickness (mm)	100	140	140 M/Cell	140
Density (kg/m ³)	1960	1960	1960	1960
Weight (kg)	18.8	26.4	19.2	17.4
Units / m ²	9.88	9.88	9.88	14.8
Colour	Natural	Natural	Natural	Natural
Finish	Std and P/G	Std and P/G	Std and P/G	Std and P/G

SUSTAINABILITY AND LOCAL SOURCING

ENERGY USE: Breedon Group is at the forefront of sustainability and has committed to reduce carbon emissions.

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:

- Products are assessed on:
- Quality management
 - environmental management
 - health and safety management
 - greenhouse gas emissions
 - minimising raw material usage
 - labour practise
 - biodiversity
 - community engagement.

KEY AGGREGATES

Locally sourced aggregates.

POLICIES

Breedon Group policies on the environment and community, health and safety and sustainable solutions for different product applications can be viewed on our website breedongroup.com

INSTALLATION STANDARD PLASTERING/RENDERING:

Breedon Dense 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. Breedon Dense Blocks produce a 140mm thick midi unit (290mm long), along with a 440 x 215 x 140mm Multicell block, which are both below 20kg.

DENSE BLOCKS

PRODUCT INFORMATION



TABLE 1 - PERFORMANCE

Dimensional tolerance Category	D1
Mean unit strength: Solid	7.3, 10.4, 17.5 and 22.5 N/mm ²
Multicell / Hollow	7.3 N/mm ²
Net dry density: All strengths	1959 kg/m ³
Thermal conductivity (W/mK): (Based on tabulated values from BS EN 1745)	Internal 1.29 External 1.38
Water vapour diffusion coefficient: All strengths (Based on tabulated values from BS EN 1745)	5/15
Moisture movement (All strengths):	<0.6mm/m
Reaction to fire: Classification to EN 13501-1	A1
Durability (Based on tabulated values from BS 5628-3 table 12):	Frost resistant
Bond strength (Based on tabulated values from BS EN 998-2 Annex C):	0.15N/mm ²

TABLE 2 - THERMAL RESISTANCE

Width (mm)	Form	Thermal resistance (m ² K/W)	
		3%	5%
100	Solid	0.0789	0.072
140	Solid	0.109	0.101
140	Multi cellular	0.164	0.156
Midi	Solid	0.109	0.101

TABLE 3 - UNIT WEIGHTS

Width (mm)	Form	Unit weight (kg)*	Built weight (kg)*
100	Solid	18.83	198
140	Solid	26.35	277
140	Multi cellular	19.20	206
Midi	Solid	17.37	277

* Based upon 3% moisture content by volume

MAINTENANCE AND CLEANING

Breedon Group can supply on request advice on general maintenance.

COSHH DATA

Full COSHH data on Breedon Concrete Products are available on request.

TABLE 4 - FIRE RESISTANCE (HOURS)

Width (mm)	Form	Load bearing	Non load bearing
100	Solid	2	2
140	Solid	2	3
140	Multi cellular	2	3
Midi	Solid	2	3

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

TABLE 5 - CHARACTERISTIC STRENGTH FK FACTORS (N/mm²)

Width (mm)	Form	Compressive strength of units			
		7.3	10.4	17.5	22.5
100	Solid	6.40	8.20	10.10	12.00
140	Solid	5.34	6.84	8.44	10.01
140	Multi cellular	5.14	N/A	N/A	N/A
Midi	Solid	5.34	6.84	8.44	10.01

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

TABLE 6 - SOUND INSULATION*

Width (mm)	Form	Rw dB	Width (mm)	Form	Rw dB
100	Solid	43	140	Multi cellular	44
140	Solid	45	Midi	Solid	45

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

A RANGE OF HIGH-STRENGTH, ROBUST, LOAD-BEARING UNITS FOR USE IN EITHER INTERNAL OR EXTERNAL WALLS.

- Available in solid format for ultimate versatility with a standard strength of 7.3N/mm²
- 10.4 N/mm² blocks are available subject to order
- Breedon Lightweight blocks are available in standard and paintgrade finishes for various applications and total flexibility
- Quality assured manufacture

APPLICATIONS

Suitable for use above and below damp-proof course (DPC) both internally and externally. Units of 7.3 N/mm² are suitable for use in beam and block floors. Breedon Lightweight blocks are also suitable for use in Robust Detail wall types E-WM- 1, 4, 8, 11, 14 and 17.

STANDARD: Suitable for locations where the surface will not be seen, ie 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).

MANUFACTURING STANDARDS

Breedon Lightweight Blocks are manufactured using a semi-dry process and are compliant to European Standard BS771-3 and comply with Category 1 masonry units.

All Breedon Group products are manufactured in accordance with ISO 9001 with factory compliance to ISO 14001.

SUSTAINABILITY AND LOCAL SOURCING

ENERGY USE: Breedon Group is at the forefront of sustainability and has committed to reduce carbon emissions.

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, under strict environmental and social legislation, for local supply.

RESPONSIBLE SOURCING:

- Products are assessed on:
- Quality management
 - environmental management
 - health and safety management
 - greenhouse gas emissions
 - minimising raw material usage
 - labour practise
 - biodiversity
 - community engagement.

POLICIES

Breedon Group policies on the environment and community, health and safety and sustainable solutions for different product applications can be viewed on our website breedonaggregates.com

LIGHTWEIGHT BLOCKS

Size (mm)	440x215x100mm	440x215x140mm
Density (kg/m ³)	1450	1450
Weight (kg)	14.1	19.8
Units / m ²	9.88	9.88
No per pack	90	60
Size (mm)	440x215x100mm	440x215x140mm
Pack weight	1.30	1.25
Colour	Natural	Natural
Finish	Std and P/G	Std and P/G

INSTALLATION STANDARD

PLASTERING/RENDERING: Breedon Lightweight 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

Breedon Group can supply on request advice on general maintenance.

COSHH DATA

Full COSHH data on Breedon Concrete Products are available on request.

LIGHTWEIGHT BLOCKS

PRODUCT INFORMATION



TABLE 1 - PERFORMANCE

Dimensional tolerance Category	D1
Mean unit strength: Solid	7.3 and 10.4 N/mm ²
Net dry density: All strengths	1450 kg/m ³
Thermal conductivity (W/mK): (Based on tabulated values from BS EN 1745)	Internal 0.60 External 0.64
Water vapour diffusion coefficient: All strengths (Based on tabulated values from BS EN 1745)	5/15
Moisture movement (All strengths):	<0.8mm/m
Reaction to fire: Classification to EN 13501-1	A1
Durability (Based on tabulated values from BS 5628-3 table 12):	7.3 N/mm ² (frost resistant)
Bond strength (Based on tabulated values from BS EN 998-2 Annex C):	0.15N/mm ²

TABLE 2 - THERMAL RESISTANCE

Width (mm)	Form	Thermal resistance (m ² K/W)	
		3%	5%
100	Solid	0.167	0.156
140	Solid	0.233	0.219

TABLE 5 - FIRE RESISTANCE (HOURS)

Width (mm)	Form	Load bearing		Non load bearing	
		2	3	2	3
100	Solid	2		2	
140	Solid	2		3	

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

TABLE 3 - UNIT WEIGHTS

Width (mm)	Form	Unit weight (kg)*	Built weight (kg)*
100	Solid	14.1	151
140	Solid	19.8	212

* Based upon 3% moisture content by volume

TABLE 6 - CHARACTERISTIC STRENGTH FK FACTORS (N/mm²)

Width (mm)	Form	Compressive strength of units	
		7.3	10.4
100	Solid	6.40	8.20
140	Solid	5.34	6.84

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

TABLE 4 - GENERIC GREEN GUIDE RATING

	Outer leaf	Inner leaf	Finish and relevant green guide rating	
			Plaster and paint	Plasterboard and paint
Brick		Breedon Lightweight	A+	A+
Render on Breedon Lightweight block		Breedon Lightweight	A+	A+
OPC/Lime render on Breedon Dense blocks		Breedon Lightweight	A+	A+

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

TABLE 7 - SOUND INSULATION*

Width (mm)	Form	Rw dB
100	Solid	42
140	Solid	44

BREEDON BLOCK AND BEAM FLOORING IS A PRESTRESSED CONCRETE JOIST SUSPENDED FLOOR SYSTEM.



Breedon block and beam flooring systems are a cost-effective and time-efficient way of reducing backfill or overcoming challenging ground conditions on site. They have the major benefit of being layable in all weathers to create a quick and instant working platform to continue building works without delay. They can be fitted without any specialist skills and once fitted create an instant rot-proof and draught-proof floor with built-in fire resistance.

Breedon block and beam flooring is a 150mm deep by 135mm wide design, which makes the product suitable for a wide variety of applications from domestic usage up to light commercial floors.

Breedon uses specialist computer software to quickly create bespoke flooring for your particular project. All you need to do is supply us with the relevant plans and information and we will do the rest. In addition to this we will provide on-site technical support when required.

Breedon offers a quick lead time on orders placed, with deliveries by specialist hauliers experienced in dealing with site requirements. Customers can also collect at short notice from our factory near Cheltenham.



Block and beam flooring is only manufactured at our factory near Cheltenham.

**FOR MORE INFORMATION,
PLEASE CALL OUR SALES
OFFICE:**

01451 850555





For more information on our product range
please request a brochure by calling:

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