

FORTERRA

AGGREGATE BLOCK GUIDE

CONBLOC



CONBLOC AGGREGATE BLOCKS

Forterra Conbloc is a market leader in the manufacture and supply of aggregate concrete blocks.

Our aggregate blocks are made using either CEM 1 (Ordinary Portland Cement), Regen which is a ground granulated blast-furnace slag (GGBS), a by-product of the iron-making industry or from CEM II A which is a factory produced composite cement produced by incorporating secondary cementitious materials (SCR) into the cement clinker to reduce the carbon content.

PRODUCT RANGE

Forterra Conbloc aggregate blocks are manufactured to the requirements of BS EN 771-3. The range is available in a variety of densities, strengths, sizes, configurations and finishes, to suit most applications - above or below ground.

CONTENTS

Dense Blocks **4-8**

Evalast Paint Grade 5
Evalast Background 6
Evalast Background Hollow 7
Evalast Background Coursing Units 8

Medium Dense Blocks **9-13**

Fenlite Paint Grade 10
Fenlite Background 1350 11
Fenlite Background 1500 12
Fenlite Coursing Units 13

Technical Application Notes **14**

Standards and Regulations **15**

DENSE AGGREGATE BLOCKS



EVALAST PAINT GRADE BLOCKS
EVALAST BACKGROUND BLOCKS & COURSING UNITS

Evalast dense aggregate blocks are available in a variety of different compressive strengths and suit situations where durable, sound insulating, robust blockwork is a prime consideration.

The Evalast range is complemented with coursing units and Paint Grade blocks.

They are an economic solution for:

- Warehouses
- Factory Units
- Offices
- Schools
- Leisure Centres
- Ground Works (notes 2, 3&4 - p14)
- New Housing / Apartments

EVALAST PAINT GRADE



Evalast Paint Grade blocks are dense aggregate blocks that are manufactured with a more uniform surface texture to accept a direct paint finish.

FACE SIZE	440 x 215mm
THICKNESS AVAILABLE	100, 140mm**
MEAN COMPRESSIVE STRENGTH	10.4 N/mm²**
DESIGN THERMAL CONDUCTIVITY	Protected (3%) 1.22 W/m.K Exposed (5%) 1.31 W/m.K
GROSS DRY DENSITY	1900 kg/m³

PRODUCT APPLICATIONS*

CAVITY WALLS EXTERNAL LEAF BELOW DPC	CAVITY WALLS EXTERNAL LEAF ABOVE DPC	CAVITY WALLS INNER LEAF BELOW DPC	CAVITY WALLS INNER LEAF ABOVE DPC	SOLID EXTERNAL WALLS BELOW DPC	SOLID EXTERNAL WALLS ABOVE DPC	SEPARATING WALLS	INTERNAL PARTITIONS	BEAM & BLOCK FLOORS	SUITABLE FOR RENDERING
✓ 1, 2, 3, 8	✗	✓ 1, 2, 8	✓	✓ 1, 2, 3, 5, 8	✓ 4, 5, 8	✓ 6	✓	✓ 8	✗

***Application Notes** See P14 for detailed application and construction information.
Whilst Paint Grade products have a consistency of texture, colour consistency cannot be guaranteed.
**10.4 N/mm², 140mm thick made to order.

CALL AGGREGATE BLOCK SALES 0330 123 1015

EVALAST BACKGROUND



Evalast Background are dense aggregate blocks that can be used in a variety of different applications.

Their performance makes them especially applicable where durable, robust blockwork that requires good sound insulating properties or high compressive strengths are required in commercial, industrial, or housing projects.

They are not intended to be left fair-faced but used with a secondary finish.

FACE SIZE	440 x 215mm
THICKNESS AVAILABLE	100, 140mm
MEAN COMPRESSIVE STRENGTH	7.3, 10.4**, 17.5*** 22.5, 30 N/mm²****
DESIGN THERMAL CONDUCTIVITY	Protected (3%) 1.32 W/m.K Exposed (5%) 1.42 W/m.K
GROSS DRY DENSITY	1990 kg/m³

PRODUCT APPLICATIONS*

CAVITY WALLS EXTERNAL LEAF BELOW DPC	CAVITY WALLS EXTERNAL LEAF ABOVE DPC	CAVITY WALLS INNER LEAF BELOW DPC	CAVITY WALLS INNER LEAF ABOVE DPC	SOLID EXTERNAL WALLS BELOW DPC	SOLID EXTERNAL WALLS ABOVE DPC	SEPARATING WALLS	INTERNAL PARTITIONS	BEAM & BLOCK FLOORS	SUITABLE FOR RENDERING
✓ 1, 2, 3	✓ 4	✓ 1, 2	✓	✓ 1, 2, 3, 5	✓ 4, 5	✓ 6	✓	✓ 7	✓

***Application Notes** See P14 for detailed application and construction information.
**10.4 N/mm², 140mm thick made to order. ***17.5 N/mm² only available in 100mm thick option.
**** 30 N/mm², 100mm & 140mm made to order.

EVALAST BACKGROUND HOLLOW



This block is manufactured with full height voids which reduce the unit's overall weight. Steel reinforcement can be located in the block voids which is then surrounded with suitable poured concrete to created reinforced structures.

FACE SIZE	440 x 215mm
THICKNESS AVAILABLE	215mm
MEAN COMPRESSIVE STRENGTH	7.3 N/mm²
DESIGN THERMAL CONDUCTIVITY	NPD**
GROSS DRY DENSITY	1990 kg/m³

PRODUCT APPLICATIONS*

CAVITY WALLS EXTERNAL LEAF BELOW DPC	CAVITY WALLS EXTERNAL LEAF ABOVE DPC	CAVITY WALLS INNER LEAF BELOW DPC	CAVITY WALLS INNER LEAF ABOVE DPC	SOLID EXTERNAL WALLS BELOW DPC	SOLID EXTERNAL WALLS ABOVE DPC	SEPARATING WALLS	INTERNAL PARTITIONS	BEAM & BLOCK FLOORS	SUITABLE FOR RENDERING
✓ 1, 2, 3	✓ 4	✓ 1, 2	✓	✓ 1, 2, 3, 5	✓ 4, 5	✗	✓	✗	✓

***Application Notes** See P14 for detailed application and construction information.
**NPD - Please contact Forterra Technical Services Department.

EVALAST BACKGROUND COURSING UNITS



Evalast Background Coursing Units are designed to complement our dense aggregate block range. They are used for bonding, infilling and coursing purposes at openings and floor levels.

Coursing units are available in 100mm and 140mm thicknesses.

They are not intended to be left fair-faced but used with a secondary finish.

FACE SIZE	215 x 65mm
THICKNESS AVAILABLE	100, 140mm
MEAN COMPRESSIVE STRENGTH	22.5 N/mm^2
DESIGN THERMAL CONDUCTIVITY	Protected (3%) 1.32 W/m.K Exposed (5%) 1.42 W/m.K
GROSS DRY DENSITY	1990 kg/m^3

PRODUCT APPLICATIONS*

CAVITY WALLS EXTERNAL LEAF BELOW DPC	CAVITY WALLS EXTERNAL LEAF ABOVE DPC	CAVITY WALLS INNER LEAF BELOW DPC	CAVITY WALLS INNER LEAF ABOVE DPC	SOLID EXTERNAL WALLS BELOW DPC	SOLID EXTERNAL WALLS ABOVE DPC	SEPARATING WALLS	INTERNAL PARTITIONS	BEAM & BLOCK FLOORS	SUITABLE FOR RENDERING
✓ 1, 2, 3	✓ 4	✓ 1, 2	✓	✓ 1, 2, 3, 5	✓ 4, 5	✓ 6	✓	✗	✓

***Application Notes** See P14 for detailed application and construction information.

VISIT FORTERRA.CO.UK/CONBLOC

MEDIUM DENSE AGGREGATE BLOCKS



FENLITE PAINT GRADE BLOCKS
FENLITE BACKGROUND BLOCKS & COURSING UNITS

Fenlite medium dense aggregate blocks are available in a variety of different compressive strengths and suit situations where lower thermal conductivity and weight are a prime consideration.

The Fenlite range is complemented with coursing units and Paint Grade blocks.

They are an economic solution for:

- New Housing
- Extensions
- Renovation
- Beam & Block flooring (note 7 - p14)

FENLITE PAINT GRADE



Fenlite Paint Grade blocks are medium density blocks that are manufactured with a more uniform surface texture to accept a direct paint finish.

FACE SIZE	440 x 215mm
THICKNESS AVAILABLE	100, 140mm
MEAN COMPRESSIVE STRENGTH	7.3 N/mm^2
DESIGN THERMAL CONDUCTIVITY	Protected (3%) 0.47 W/m.K
GROSS DRY DENSITY	1450 kg/m^3

PRODUCT APPLICATIONS*

CAVITY WALLS EXTERNAL LEAF BELOW DPC	CAVITY WALLS EXTERNAL LEAF ABOVE DPC	CAVITY WALLS INNER LEAF BELOW DPC	CAVITY WALLS INNER LEAF ABOVE DPC	SOLID EXTERNAL WALLS BELOW DPC	SOLID EXTERNAL WALLS ABOVE DPC	SEPARATING WALLS	INTERNAL PARTITIONS	BEAM & BLOCK FLOORS	SUITABLE FOR RENDERING
✓ 1, 2, 3, 8	✗	✓ 1, 2, 8	✓	✓ 1, 2, 3, 5, 8	✓ 4, 5, 8	✓ 6	✓	✓ 8	✗

***Application Notes** See P14 for detailed application and construction information.
Whilst Paint Grade products have a consistency of texture, colour consistency cannot be guaranteed.

FENLITE BACKGROUND 1350



Fenlite Background are medium density aggregate blocks that can be used in a variety of different applications.

Their performance makes them especially applicable where lower thermal conductivity or reduced weight is required in housing applications such as cavity walls, internal partitions, separating walls and beam & block flooring.

They are not intended to be left fair-faced but used with a secondary finish.

FACE SIZE	440 x 215mm
THICKNESS AVAILABLE	100, 140mm**
MEAN COMPRESSIVE STRENGTH	3.6**, 7.3, 10.4 N/mm^2
DESIGN THERMAL CONDUCTIVITY	Protected (3%) 0.45 W/m.K Exposed (5%) 0.48 W/m.K
GROSS DRY DENSITY	1350 kg/m^3

PRODUCT APPLICATIONS*

CAVITY WALLS EXTERNAL LEAF BELOW DPC	CAVITY WALLS EXTERNAL LEAF ABOVE DPC	CAVITY WALLS INNER LEAF BELOW DPC	CAVITY WALLS INNER LEAF ABOVE DPC	SOLID EXTERNAL WALLS BELOW DPC	SOLID EXTERNAL WALLS ABOVE DPC	SEPARATING WALLS	INTERNAL PARTITIONS	BEAM & BLOCK FLOORS	SUITABLE FOR RENDERING
✓ 1, 2, 3	✓ 4	✓ 1, 2	✓	✓ 1, 2, 3, 5	✓ 4, 5	✓ 6	✓	✓ 7	✓

***Application Notes** See P14 for detailed application and construction information.
**140mm thickness is not available with a mean compressive strength of 3.6 N/mm^2

FENLITE BACKGROUND 1500



Fenlite Background 1500 are medium density blocks suitable for use in a variety of standard applications.

Their performance makes them suitable for applications where an enhanced density is required but thermal conductivity is still a key factor. They are not intended to be left fair-faced but used with a secondary finish.

FACE SIZE	440 x 215mm
THICKNESS AVAILABLE	100, 140mm**
MEAN COMPRESSIVE STRENGTH	3.6**, 7.3, 10.4 N/mm^2
DESIGN THERMAL CONDUCTIVITY	Protected (3%) 0.48 W/m.K Exposed (5%) 0.52 W/m.K
GROSS DRY DENSITY	1500 kg/m^3

PRODUCT APPLICATIONS*

CAVITY WALLS EXTERNAL LEAF BELOW DPC	CAVITY WALLS EXTERNAL LEAF ABOVE DPC	CAVITY WALLS INNER LEAF BELOW DPC	CAVITY WALLS INNER LEAF ABOVE DPC	SOLID EXTERNAL WALLS BELOW DPC	SOLID EXTERNAL WALLS ABOVE DPC	SEPARATING WALLS	INTERNAL PARTITIONS	BEAM & BLOCK FLOORS	SUITABLE FOR RENDERING
✓ 1,2,3	✓ 4	✓ 1,2	✓	✓ 1,2,3,5	✓ 4,5	✓ 6	✓	✓ 7	✓

***Application Notes** See P14 for detailed application and construction information.
**140mm thickness is not available with a mean compressive strength of 3.6 N/mm^2

FENLITE BACKGROUND COURSING UNITS



Fenlite Background Coursing Units are designed to complement our medium dense aggregate block range. They are used for bonding, infilling and coursing purposes at openings and floor levels.

Coursing units are available in 100mm and 140mm thicknesses.

They are not intended to be left fair-faced but used with a secondary finish.

FACE SIZE	215 x 65mm
THICKNESS AVAILABLE	100, 140mm
MEAN COMPRESSIVE STRENGTH	10.4 N/mm^2
DESIGN THERMAL CONDUCTIVITY	Protected (3%) 0.45 W/m.K Exposed (5%) 0.48 W/m.K
GROSS DRY DENSITY	1350 kg/m^3

PRODUCT APPLICATIONS*

CAVITY WALLS EXTERNAL LEAF BELOW DPC	CAVITY WALLS EXTERNAL LEAF ABOVE DPC	CAVITY WALLS INNER LEAF BELOW DPC	CAVITY WALLS INNER LEAF ABOVE DPC	SOLID EXTERNAL WALLS BELOW DPC	SOLID EXTERNAL WALLS ABOVE DPC	SEPARATING WALLS	INTERNAL PARTITIONS	BEAM & BLOCK FLOORS	SUITABLE FOR RENDERING
✓ 1,2,3	✓ 4	✓ 1,2	✓	✓ 1,2,3,5	✓ 4,5	✓ 6	✓	✗	✓

***Application Notes** See P14 for detailed application and construction information.

TECHNICAL APPLICATION NOTES

1. Products suitability in this application is subject to the block achieving the sites soil / groundwater DS classification requirements.
2. Blocks must have either a minimum compressive strength of 7.3N/mm² or a minimum density of 1500 kg/m³ when used below dpc level.
3. Blocks in the external leaf from dpc level to 150mm below ground level must not be left exposed, suitable products such as clay bricks of Class B Engineering properties or “F2” durability in accordance with BS EN 771-1 should be specified in this zone, alternatively blocks may be covered with a suitable protective finish.
4. For all external leaf applications, the block requires a suitable impervious coating or finish applied, blocks must not be left exposed when used on the external leaf.
5. Please refer to Building Regulations, Approved Document A and the Project Structural Engineer for minimum wall thickness, block compressive strength and characteristic strength requirements, specification varies subject to numerous factors which include loading, block orientation, wall height and length.
6. Product suitability in this application is subject to the block achieving the walls specification requirements for sound reduction or those specification criteria set in the Robust Detail selected.
7. For beam and block infill applications, aggregate blocks must have a minimum compressive strength of 7.3 N/mm².
8. The Paint Grade block is a premium product which is manufactured to produce a close face texture and technically can be used in this situation. Commercially, suitable background blocks may be a more suitable specification in this siutation.



STANDARDS AND REGULATIONS



The British/European Standards and Building Regulations that apply to the manufacture and use of aggregate blocks are always subject to revision and improvement.

Certain documents that are either in the process of change, or whose publication is imminent, cannot be fully accommodated at the time of publication, although, wherever possible, reference has been made in the text.

The Forterra website forterra.co.uk will be updated as important changes occur. For any specific queries relating to the manufacture or application of the product, please contact the Technical Services Department on: 0330 123 1018.

Forterra is a leading manufacturer of a diverse range of clay and concrete building products, used extensively within the construction sector, and employs over 1,800 people across 17 manufacturing facilities in the UK.

It is the second largest brick and aircrete block manufacturer in the country, and the only producer of the iconic London Brick. Other trusted brands from Forterra include Thermalite, Conbloc, Ecostock, Butterley, Cradley, Red Bank, Bison Precast and Formpave.

forterra.co.uk

Forterra
222 Peterborough Road
Whittlesey
Cambridgeshire
PE7 1PD

Tel: 0330 123 1015
Email: blocks@forterra.co.uk

forterra.co.uk

FORTERRA

CONBLOC

forterra.co.uk