

# FENLITE BACKGROUND 1500

## Technical Datasheet

V2 04-24



### PRODUCT APPLICATIONS

BLOCK WIDTH / COMPRESSIVE STRENGTH	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
100mm / 3.6N	X	✓ 4	X	✓	X	✓ 4	✓ 5	✓	X	✓
100mm / 7.3N	✓ 1, 2, 3	✓ 4	✓ 1, 2	✓	✓ 1, 2, 3	✓ 4	✓ 5	✓	✓ 6	✓
100mm / 10.4N	✓ 1, 2, 3	✓ 4	✓ 1, 2	✓	✓ 1, 2, 3	✓ 4	✓ 5	✓	✓ 6	✓
140mm / 3.6N <span style="color:red">⚠</span>	X	✓ 4	X	✓	X	✓ 4	✓ 5	✓	X	✓
140mm / 7.3N <span style="color:red">⚠</span>	✓ 1, 2, 3	✓ 4	✓ 1, 2	✓	✓ 1, 2, 3	✓ 4	✓ 5	✓	X	✓
140mm / 10.4N <span style="color:red">⚠</span>	✓ 1, 2, 3	✓ 4	✓ 1, 2	✓	✓ 1, 2, 3	✓ 4	✓ 5	✓	X	✓

#### Notes:

- Products suitability in this application is subject to the block achieving the sites soil / groundwater DS classification requirements.
- Blocks must have either a minimum compressive strength of 7.3N or a minimum density of 1500 kg/m<sup>3</sup> when used below dpc level.
- 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.
- 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.
- 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.
- For beam and block infill applications, aggregate blocks must have a minimum compressive strength of 7.3 N/mm<sup>2</sup>.

- 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 situation.
- Estimated figure only, tested values are generally 1 - 3 dB lower.

Products should be designed and constructed in accordance with all relevant Legislation, Building Regulations, European & British Standards, Acts, Codes of Practice and manufacturers recommendations.

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, restraint, wall height and length.

Block weights based on gross density plus 10% @ 5% (Evalast products) or 15% (Fenlite products) moisture content (typical received), moisture equilibrium approximately 3% (protected) and 5% (exposed).

NPD No performance declaration - please contact Forterra for further information.

\*Manufactured to special order only. ⚠ CAUTION HEAVY ITEMS >25kg.

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### PRODUCT TECHNICAL PROPERTIES

Blocks are manufactured to BS EN 771-3.

#### Material Properties

Thickness (mm):	100	140 <span style="color: red;">▲</span>
Face Sizes – L x H (mm):	440 x 215	
Dimension Tolerance Classification:	D1	
Dimension Tolerance – Length:	(+3mm -5mm)	
Dimension Tolerance – Height:	(+3mm -5mm)	
Dimension Tolerance – Width:	(+3mm -5mm)	
Unit Weight, Gross Density + 10% @ 15% Moisture (kg):	18.0	25.1
Configuration:	Group 1 (Solid)	
Category:	II	
Mean Compressive Strength (N/mm <sup>2</sup> ):	3.6, 7.3, 10.4	3.6, 7.3, 10.4
Gross Dry Density (Kg/m <sup>3</sup> ):	1500	
Thermal Conductivity - λ10, dry unit, S1 (W/m.K):	0.5	
Design Thermal Conductivity - Protected (3%) (W/m.K):	0.56	
Design Thermal Conductivity - Exposed (5%) (W/m.K):	0.61	
Design Thermal Conductivity - Below Dpc Level (W/m.K):	NPD	
Thermal Resistance - Protected (3%) (m <sup>2</sup> .K/W):	0.179	0.25
Thermal Resistance - Exposed (5%) (m <sup>2</sup> .K/W):	0.164	0.23
Sound Reduction – Un-finished (RW dB):	45.1 <sup>8</sup>	48.3 <sup>8</sup>
Fire Resistance (Hours) (NA to BS EN 1996-1-2) – Non-load Bearing Single Leaf walls (Criteria EI):	4	
Fire Resistance (Hours) (NA to BS EN 1996-1-2) – Load Bearing Single Leaf walls (Criteria REI) ≤ 1.0:	2	3
Load Bearing Single Leaf walls (Criteria REI) ≤ 0.6:	3	4
Reaction to Fire (BS EN 13501):	A1	
Durability Against Freeze / Thaw:	Not to be left exposed	
Water Vapor Permeability:	5/15	
Dimensional Stability - Moisture Movement (mm/m):	< 1.5 mm/m	
Vapour Resistivity (MN.s/g.m):	75	
Soil or Groundwater DS Classification:	DS1 <sup>2</sup>	
Shear Bond Strength (N/mm <sup>2</sup> ):	0.15	
Movement Joint Detail	Vertical movement joints at 6m centres and not more than half that spacing from a corner	

#### Notes

▲ CAUTION HEAVY ITEMS >25kg Warning.

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