

# BRICK TECHNICAL DATA SHEET

## DENSE AND LIGHTWEIGHT COURSING BRICKS

Edenhall's coursing bricks are designed to be used in all types of construction in conjunction with dense aggregate or lightweight aggregate concrete blocks.

The 140mm width units are particularly suitable for use in the inner leaf of three storey buildings and party walls (Ref, Parts A and E of the Building Regulations) in addition to the requirements of BS 8103, 'Structural Design of Low Rise Buildings'.

For lightweight bricks the specially selected aggregates used in the manufacturing process provide density, strength and thermal conductivity values which are comparable with the majority of lightweight aggregate blocks with a density range of 1000-1500kg/m<sup>3</sup>. Lightweight bricks should not be used in conjunction with autoclaved aerated blocks.

Good quality coursing bricks age harden and dense coursing bricks, with an average compressive strength of 22.5N/mm<sup>2</sup>, will resist freeze-thaw cycles. Lightweight bricks should only be used on inner leaves and should be protected from prolonged frost or snow.

The bricks, which are solid, are manufactured and tested in accordance with BS EN 771-3: 2011 - 'Specification for Masonry Units: Aggregate Concrete Masonry Units'.

	Dense Bricks	Lightweight Bricks
<b>Appearance</b>	Greyish colour with variable texture. The colour may vary depending upon the supplying works. No guarantee can be given in respect of colour or texture consistency.	
<b>Dimensions</b>	215mm x 100mm x 65mm 215mm x 140mm x 65mm	215mm x 100mm x 65mm 215mm x 140mm x 65mm
<b>Tolerances</b>	Category D1 (+3-5mm in all directions)	
<b>Configuration</b>	Solid (no frogs/perforations). Bricks can be supplied with a textured face for render situations as required by the NHBC Standards (Chapter 6.1 – D15(d)).	
<b>Composition</b>	Selected dense aggregates and Portland cements. A certain amount of recycled aggregate may also be included in the mix.	Selected lightweight aggregates and Portland cements. A certain amount of recycled aggregate may also be included in the mix.
<b>Dry Density</b>	Average 2100kg/m <sup>3</sup>	Average <1400kg/m <sup>3</sup>
<b>Dry Weight</b>	100mm: 3.1kg 140mm: 4.1kg	100mm: 2.0kg 140mm: 2.8kg
<b>Compressive Strength</b>	Average 22.5N/mm <sup>2</sup> mean	Average 10N/mm <sup>2</sup> mean
<b>Thermal Conductivity</b>	Protected: 1.24 W/mK Exposed: 1.33 W/mK	Protected: 0.39 W/mK Exposed: N/A
<b>Durability</b>	Based on tabulated values from BS 5628-3 and PD 6697 dense coursing bricks are classed as frost resistant. Lightweight bricks should only be used on internal walls and the inner leaves of cavity walls above dpc level where there is no risk of freezing.	
<b>Water Absorption By Capillarity</b>	50-150g/m <sup>2</sup> /s <sup>0.5</sup>	
<b>Water Absorption By Weight</b>	8-16%	
<b>Moisture Movement</b>	<0.45mm/m	<0.90mm/m
<b>Water Vapour Permeability</b>	5/15μ (Tabulated from EN 1745)	
<b>Reaction To Fire</b>	Euroclass A1	
<b>Shear Bond Strength</b>	0.15N/mm <sup>2</sup> (Tabulated from EN 998-2: 2003, Annex C)	
<b>Built Wall Weight (100mm Wide)</b>	200kg/m <sup>2</sup> Unplastered Single Leaf Wall	150kg/m <sup>2</sup> Unplastered Single Leaf Wall
<b>Green Guide Rating</b>	A+	
<b>Presentation</b>	Self contained packs, shrinkwrapped in most instances to non-returnable pallets in packs of 384, 448 and 512 No. bricks.*	
<b>Applications</b>	<ul style="list-style-type: none"> <li>• Making up courses in blockwork</li> <li>• As reveals, jambs and window heads</li> <li>• To eliminate cutting on site</li> </ul>	<ul style="list-style-type: none"> <li>• As padstones on top of hollow blocks</li> <li>• As kicker units to bring blockwork to wall height</li> </ul>

**Head Office:** PD Edenhall Ltd, Danygraig Road, Risca, Newport, NP11 6DP **Tel:** 01633 612671 **Fax:** 01633 601280 [edenhall.co.uk](http://edenhall.co.uk)