

# AIRTEC BRICKETTES

## Aerated Concrete Coursing Units

Airtec Brickettes are 65mm high coursing units for use with Airtec wall blocks as infill around doors, windows and for coursing adjustments. Available in all Airtec grades, they eliminate the need to cut down full-size blocks, maintain material continuity and thermal performance throughout the wall and reduces thermal bridging around openings.

All Airtec blocks are manufactured from high quality materials, consisting of up to 80% recycled raw material and are suitable for use above and below damp-proof course.

Airtec blocks are manufactured to BS EN 771-4 category I manufacturing, BBA certified and are ISO 9001 Quality Assured, ISO 14001 Environmentally Certified and hold BES 6001 Responsible Sourcing.



## TECHNICAL PROPERTIES

Property	Airtec XL 2.9N	Airtec Standard 3.6N	Airtec Party Wall	Airtec Seven 7.3N
Face Size (BS EN 771-4):	215mm x 65mm (tolerance category BS EN 771-4 'TLMB')			
Available Widths:	100, 140mm	100, 140mm	100mm	100, 140mm
Gross Dry Density (BS EN 772-13):	460 kg/m <sup>3</sup>	530 kg/m <sup>3</sup>	630 kg/m <sup>3</sup>	730 kg/m <sup>3</sup>
Mean Compressive Strength (BS EN 772-1):	2.9 N/mm <sup>2</sup>	3.6 N/mm <sup>2</sup>	3.6 N/mm <sup>2</sup>	7.3 N/mm <sup>2</sup>
Manufacturing Category (BS EN 771-4):	Category I			
Thermal Conductivity (BS EN 1745):	0.09 W/mK [inner leaf] 0.10 W/mK [outer leaf]	0.11 W/mK [inner leaf] 0.13 W/mK [outer leaf]	0.13 W/mK [inner leaf] 0.15 W/mK [outer leaf]	0.17 W/mK [inner leaf] 0.19 W/mK [outer leaf]
Moisture Movement (BS EN 771-4):	0.40 mm/m			
Fire Resistance (BS EN 13501-1):	Class A1 reaction to fire			
Configuration (BS EN 1996-1-1):	Solid - Group 1			
Available Texture, Finish:	Standard			

## PHYSICAL PROPERTIES & PACK DETAILS

Block Type	Block Size mm	'R' Value m <sup>2</sup> k/W	Fire Resistance Hours See Note 2	Block Weight kg See Note 1	Blocks per Pack	m <sup>2</sup> per Pack	Weight per Pack kg	Blocks per m <sup>2</sup>
Airtec XL 2.9N	100	1.11	4	0.66	520	8.78	421	60
	140	1.56	4	0.92	416	7.02	470	
Airtec Standard 3.6N	100	0.91	4	0.78	520	8.78	485	
	140	1.27	4	1.09	416	7.02	541	
Airtec Party Wall	100	0.77	4	0.88	520	8.78	550	
Airtec Seven 7.3N	100	0.59	4	1.05	520	8.78	668	
	140	0.82	4	1.47	416	7.02	753	

The m<sup>2</sup> per pack shown above includes the 10mm conventional mortar joint. Figures will be less if using thin-joint mortar by approximately 4.8%.

Some block sizes and strengths are made to order. Please check with our sales office on block availability as far in advance as possible before the blocks are required.

- The block weights quoted are approximate and include the typical additional weight from the equilibrium (3%) moisture content.
- Fire resistance periods to BS EN 1996-1-2 for a single-leaf, non-loadbearing plastered wall.

Thermal

Airtec Brickettes possess the same excellent thermal performance as Airtec wall blocks. For details of u-values please visit our website. For specific calculations, please contact our technical department.

Acoustic

Airtec Brickettes of XL and Standard grades are not recommended for use in acoustic separating and party walls. For separating and party walls, our Airtec Party Wall or Airtec Seven blocks and bricks are recommended - see individual datasheets for these products.

Below Ground

Airtec Standard blocks are suitable for use below dpc in soil conditions DS1 & DS2 as defined in BRE Special Digest 1 and condition MX3.2 as defined in BS EN 1996-2 : 2006.

Fire Resistance

Airtec blocks are non-combustible with zero spread of flame and are classed as Class ‘A1’ in accordance with BS EN 13501-1. Notional fire resistance periods based on BS EN 1996-1-2 are:

Block mm	Loadbearing Wall		Non-loadbearing Wall	
	No Finish	VG Plaster	No Finish	VG Plaster
100	2 hours	4 hours	4 hours	4 hours
140	3 hours	4 hours	4 hours	4 hours

“VG” = vermiculite / gypsum plaster or perlite plaster 13mm thick applied to both faces of single leaf walls.

Mortars

Airtec blocks offer a good surface for accepting mortars. On dry blocks, surfaces can be brushed with clean water immediately before applying mortar to overcome the suction. The preferred approach is to adjust the consistency of the mortar to suit the suction of the block. The weakest mortar mixture appropriate to the structural requirements should be selected as per BS 5628-3. A weaker mix should always be used with Airtec blocks.

	Mortar Class BS EN 1996-1-1	Recommended mix proportions of materials by volume (as per BS EN 998-2)	
Above dpc	(iii) M4	1 : 1 : 5½ to 6 1 : 5½ to 6 1 : 4½ to 5	Cement : Lime : Sand Cement : Sand (with plasticiser) Masonry Cement : Sand
Below dpc	(ii) M6	1 : ¾ : 4 to 4½ 1 : 3½ to 4	Cement : Lime : Sand Cement : Sand

Airtec is suitable for Thin Joint mortar construction using mortar supplied in the form of 25kg bags of dry, pre-mixed powder. Mixing is simply done by adding water to the powder in accordance with the manufacturer’s instructions. Please visit our website for further details.

External Rendering

Airtec blocks have moderate-high suction and brushing dry blocks with water immediately prior to adhesion is recommended. For even greater adhesion, a spatterdash or stipple undercoat may be used - please refer to our website for further details. Pretreatments such as RendAid may be used and metal lathing plus an additional coat should be used to reinforce the render where movement control has not been incorporated into the wall.

Traditional renders should be applied in 2 coats. The first coat should not exceed 15mm and the second coat should be 5-7mm. The first coat should be slightly stronger than the second.

Cement : Lime : Sand Sheltered to Moderate Conditions	Cement : Lime : Sand Moderate to Severe conditions	Cement : Sand with plasticizer Sheltered to Moderate Conditions	Masonry Cement : Sand Moderate to Severe conditions
1 : 2 : 9	1 : 1 : 6	1 : 6	1 : 5

Wall Ties & Movement Joints

Generally under normal conditions, wall ties should be embedded 50mm into the mortar on each leaf, staggered in alternate courses and spaced in accordance with the following:

Leaf Thickness mm	Cavity Width mm	Horizontal Spacing mm	Vertical Spacing mm	Ties per m²
Less than 90mm	50 - 75	450	450	4.9
Over 90mm	50 - 150	900	450	2.5

For unreinforced Airtec masonry panels, movement joints should be placed at intervals of no greater than 6m and within 3m of a corner. Additional wall ties should be placed around openings and each side of movement joints at each course. In wall areas of higher stress such as around openings, joists or lintels, bed-joint reinforcement must be placed in the two courses immediately above and below the area to accommodate movement and stresses and to avoid the appearance of hairline cracks.



Good Site Practice & Safe Handling

- Packs should be stored on firm, level ground no more than 2 packs high and protected from severe weather to preserve their quality. Care must be taken when removing the plastic bands as individual blocks may fall out. Never un-band packs above shoulder height.
- In the absence of a revised version of the HSE guidance given in their withdrawn Construction Sheet 37 'Handling Building Blocks' the following principles should be followed: There is a risk of injury in the repetitive handling of blocks heavier than 20kg. Repetitive manual handling of blocks over 20kg should be subject to a risk assessment and a safe system of work should be established before block-laying commences.
- Blocks should not be laid if the temperature is at or below 3°C and falling.
- Blocks should always be laid on a full bed of mortar and vertical joints filled.

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