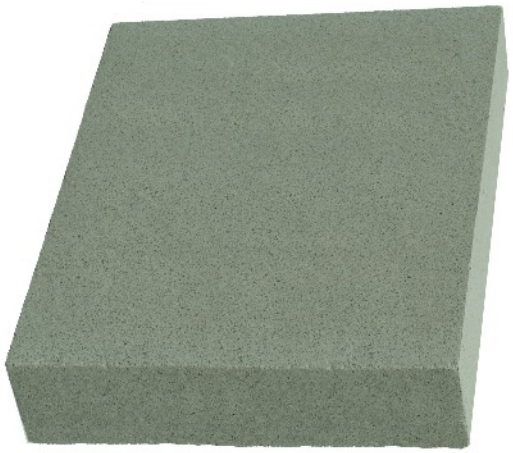
THOMAS ARMSTRONG (CONCRETE BLOCKS) LTD

AIRTEC LARGE FLOOR



Large Format Airtec Aerated Floor Blocks

Airtec Large Floor are suitable for use in beam & block floors to provide improved thermal insulation and quick, safe and easy installation. Weighing as little as 16.5kg they can be laid in a 620mm or 430mm width, offering a choice of reinforced T-beam centre spacings of 705mm and 515mm respectively.

These blocks are also suitable for use in walls - please refer to our Airtec Large Wall Block datasheet.

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 Standard 3.6N	Airtec Seven 7.3N
Size L x W x H (BS EN 771-4):	620mm x 100mm x 430mm	
Dimensional Tolerance (BS EN 772-16):	TLMB	
Gross Dry Density (BS EN 772-13):	530 kg/m³	730 kg/m³
Mean Compressive Strength (BS EN 772-1):	3.6 N/mm²	7.3 N/mm²
Manufacturing Category (BS EN 771-4):	Category I	
Thermal Conductivity (BS EN 1745):	0.11 W/mK [protected] 0.13 W/mK [exposed]	0.17 W/mK [protected] 0.19 W/mK [exposed]
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	

bsi. ISO 9001 Quality Management FS 665648 · ISO 14001 Environmental Management EMS 665649 · BES 6001 Responsible Sourcing of Construction Products BES 665651 BES 665634

APPLICATIONS

- Infill for beam & block floors in either orientation.
- > 3.5kN transverse strength tested.
- Low weight 430mm high and 620mm long meaning faster, safer block laying.
- Suitable for use in walls above dpc - see our Airtec Large Wall datasheet and website for further details.
- Can be laid between beams 620mm wide or 430mm wide to allow for a flexible laying pattern.

PHYSICAL PROPERTIES & PACK DETAILS

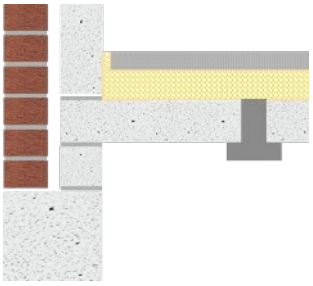
Block Type	Blocks per pack	Block Weight kg	m² per pack	Weight per Pack kg	Blocks per m²
Standard 3.6N	28	16.5	7.47	564	3.61
Seven 7.3N	28	21.8	7.47	660	3.61

The m² per pack figure DOES NOT include allowance for the mortar joint - this figure is for the block only.

The block weights quoted above are approximate and include the typical additional weight from the equilibrium (3%) moisture content of the block. Received block weights will be significantly higher and are variable due to moisture content.

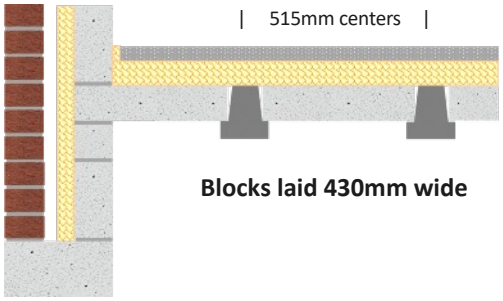
Example u-values

The table below shows the thickness (mm) required to achieve target u-values at a range of perimeter / area (P/A) ratios using the following construction:

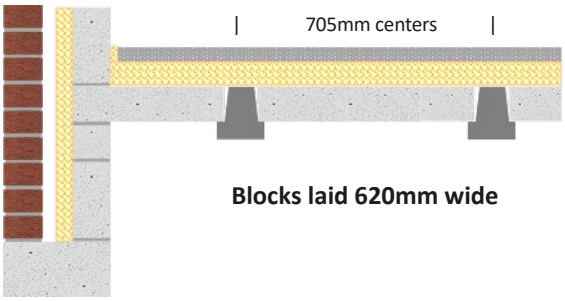


- 150mm T-beam
- 100mm thick block infill, 3.6N or 7.3N
- 620mm or 430mm laid width
- Insulation slabs
- Standard Screed, 65mm

	0.18 W/m²K					0.13 W/m²K				
P/A Ratio :	**0.70**	**0.60**	**0.50**	**0.40**	**0.30**	**0.70**	**0.60**	**0.50**	**0.40**	**0.30**
Expanded Polystyrene (0.038)	135	130	125	115	100	210	210	205	195	180
Extruded Polystyrene (0.033)	115	110	105	100	90	185	180	175	170	160
Low-k Expanded Polystyrene (0.030)	105	100	100	85	80	170	165	160	155	145
Polyurethane / PIR (0.022)	80	75	70	70	60	125	120	120	115	105



Blocks laid 430mm wide



Blocks laid 620mm wide

Note: The center widths are approximate and based on a typical 150mm deep T-beam profile which may vary depending on beam type.

Installation Safety

It should be noted that the full working strength of a beam and block floor will not be achieved until it is grouted and the specified finish is applied. Before any loading or traffic is allowed onto the floor or finish is applied, the blocks must be fully grouted with 1:4 cement / sharp sand.

Beam and block floor systems can be used in their partially finished state as working platforms during the construction process provided they are not subjected to heavy or point loads or to sharp impacts. The use of walking boards across beams is strongly advised and blocks should not be stood on directly until the floor is completed.

Exposure and Below Ground

Airtec Standard blocks are suitable for use below dpc in soil conditions DS1 as defined in BRE Special Digest 1 and condition MX2.1 as defined in BS EN 1996-2 : 2006.

Airtec Seven blocks are suitable for use below dpc in soil conditions DS1, DS2 & DS3 as defined in BRE Special Digest 1 and condition MX2.2 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. Refer to our Airtec Large Wall datasheet for further information.

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.
- Flooring blocks are defined as NR (non-resisting) and do not perform a significant mechanical function to the overall structural strength of the floor. The beams themselves provide the structural strength of the floor system. The infill blocks simply provide a base for the application of subsequent screed and insulation layers.
- For this reason, during the laying phase blocks must not be stood on or subjected to impact or point-loading in their laid-flat state. Walking boards must be used across the beams to provide a safe working platform whilst working on the floor. The floor will only achieve full strength and integrity once the blocks are grouted into place and the subsequent layers applied.

NBS Clauses for our concrete block products can be found on **www.source.thenbs.com**

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