ULTRALITE

THOMAS ARMSTRONG (CONCRETE BLOCKS) LTD

Low Density Lightweight Aggregate Blocks

Ultralite blocks provide a lightweight, loadbearing solution with enhanced thermal properties suitable for a wide range of applications.

Ultralite blocks are manufactured to BS EN 771-3, are ISO 9001 Quality Assured, ISO 14001 Environmentally Certified and hold BES 6001 Responsible Sourcing certification.



TECHNICAL PROPERTIES

Property	Value
Face Size	440mm x 215mm
Dimensional Tolerance	Category D1
Gross Dry Density	1050 - 1150 kg/m^3
Compressive Strength	3.6 & 7.3 N/mm^2
Manufacturing Category	Category II
Thermal Conductivity	0.28 W/mK [inner leaf] 0.30 W/mK [outer leaf]
Moisture Movement	< 0.6 mm/m
Fire Resistance	Class A1 reaction to fire
Configuration	Solid - Group 1
Available Texture	Standard

APPLICATIONS

- Inner & outer leaf of external cavity walls.
- Internal partition walls.
- Acoustic separating party walls to Part E of the Building Regulations.
- Standard texture finish provides an excellent surface for mortars, renders, plasters.
- Low weight, robust, accepts most standard fixings.
- Walls below dpc (7.3N/mm^2 only).

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

PHYSICAL PROPERTIES & PACK DETAILS

Block Size mm	R Value m^{2}k/W	Walled Weight kg/m^2 (note 1)	Sound Reduction Rw, dB (note 2)	Bock Weight kg (note 3)	Fire Resistance Hours (note 4)	Blocks per Pack	m^2 per Pack
100	0.36	118	44	10.7	4	72 or 90	7.2 or 9.0
140	0.50	165	47	15.0	4	48 or 60	4.8 or 6.0

1. Walled weight is for a single-leaf wall, plastered on both sides.
2. Sound Reduction Rw values are based on wall mass and assumes a plastered finish on both sides.
3. 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 may be significantly higher and are variable due to moisture content.
4. Fire resistance periods to BS EN 1996-1-2 for a single-leaf, non-loadbearing plastered wall.

Pack details may vary slightly between manufacturing locations. Always check details with your nearest sales office.

ULTRALITE

Low Density Lightweight Aggregate Blocks

Thermal - u-value solutions (0.18 W/m²K)



Fully Filled Cavity	150mm glass fibre @ 0.032
Partial Filled Cavity (with a 50mm clear cavity)	80mm batt @ 0.019 90mm batt @ 0.022
Hybrid Insulation (100mm cavity)	100mm hybrid PIR insulation

All examples use 12.5mm standard plasterboard on dabs

Mortars & External Rendering

Area	Mortar Class	Recommended Mix Proportions	
Above DPC	(iii) M4	1 : 1 : 5½-6 1 : 5½-6 1 : 4½-5	Cement : Lime : Sand Cement : Sand (with plasticiser) Masonry Cement : Sand
Below DPC	(ii) M6	1 : ½ : 4-4½ 1 : 3½-4	Cement : Lime : Sand Cement : Sand

Acoustic

Ultralite blocks are suitable for use in acoustic separating party walls between dwellings and for internal partitions in accordance with Part E of the Building Regulations and will require pre-completion sound testing.

Block Size mm	Walled Weight kg/m²	Predicted Sound Reduction (Rw), dB		
		Unfinished	Plastered	Drylined
100	118	43	44	44
140	165	46	47	47

Movement Joints & Wall Ties

Recommended spacing between vertical movement joints for Ultralite blocks is 6m on both internal and external walls. Wall ties should be embedded 50mm into the mortar on each leaf.

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

Below Ground

All of our 7.3Nmm² and higher strength aggregate and dense concrete blocks are durable products which are suitable for use in soil conditions up to Design Sulphate class DS-3 as defined in BRE Special Digest 1.

Suspended Block & Beam Floors

Ultralite blocks with a strength of 7.3N/mm² or higher can be used as infill blocks although we recommend using Insulite 7.3N/mm² blocks.

Fire Resistance

Ultralite 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 Size 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

Good 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.
- Repetitive manual handling of blocks over 20kg should be subject to a safe system of work establishing before laying.
- Blocks should not be laid if the temperature is at or below 3 degC and falling.
- Blocks should always be laid on a full bed of mortar and all vertical joints filled.

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

November 2026

UK CA

NBS Source PARTNER

Product details and availability may vary between manufacturing locations. Please contact your nearest regional sales office for sales, product and technical advice.

North East Region :	Tel: 01207 544 214	Fax: 01207 541 800	blocks@thomasarmstrong.co.uk
Cumbria, North Lancashire and Borders Region :	Tel: 01900 68114	Fax: 01900 66136	cumbriablocksales@thomasarmstrong.co.uk
Yorkshire, Humber and Lincolnshire Region :	Tel: 0113 232 0022	Fax: 0113 287 0839	leedssales@thomasarmstrong.co.uk
North West, Cheshire, Staffordshire and West Midlands Region :	Tel: 0151 525 5991	Fax: 0151 530 1676	aintreesales@thomasarmstrong.co.uk