

Products and Applications



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Aircrete /aerkri:t/ noun., adj.

1. autoclaved, aerated concrete (AAC) 2. (cel)lular (con)crete (CELCON). One of the lightest forms of concrete with structural, thermal, sound, fire and freeze/thaw properties, extensively used in Europe where known as 'gasbeton'. Used in the UK since the 1950s; today known as 'aircrete'. Comprises pulverised fuel ash (PFA), sand, cement, aluminium powder, lime and water. Used as blocks in a range of thicknesses and face formats for internal and external walls above and below dpc and as infill in beam and block floors; used as a material for reinforced floor elements.

At H+H we believe in the future of aircrete, which is why we manufacture and sell only aircrete products. With our commitment to research and development, we have helped transform this unique and versatile product into the modern building systems we have today.

With their thermal, acoustic and load bearing capabilities, H+H products offer simple solutions to the latest Building Regulations. In addition to being lightweight they also have the benefits of high resistance to fire, sulfate attack, frost and water penetration.

Since setting up our first research and development laboratory in 1969, H+H has been at the forefront of aircrete research and manufacturing.

A totally focused strategy, combined with specialised resources, has enabled us to undertake pioneering work with solutions including Celcon Blocks, Celcon Plus Blocks, Jumbo Bloks, Multi Plates, the H+H Thin-Joint System and the Rå Build method.



The complete building material **Housing**



- 01 Solid Foundations
- 02 Beam and Block floors
- 03 Solid Wall Construction
- 04 Separating and Flanking Walls
- 05 Partition Walls
- 06 External Cavity Walls



You can use H+H aircrete throughout the house from foundations to roof. H+H aircrete is designed to meet our own exacting quality standards as well as providing constructions to meet requirements of Building Regulations for internal partition walls, solid walls, cavity walls, separating walls, cavity and solid foundations and suspended floors.

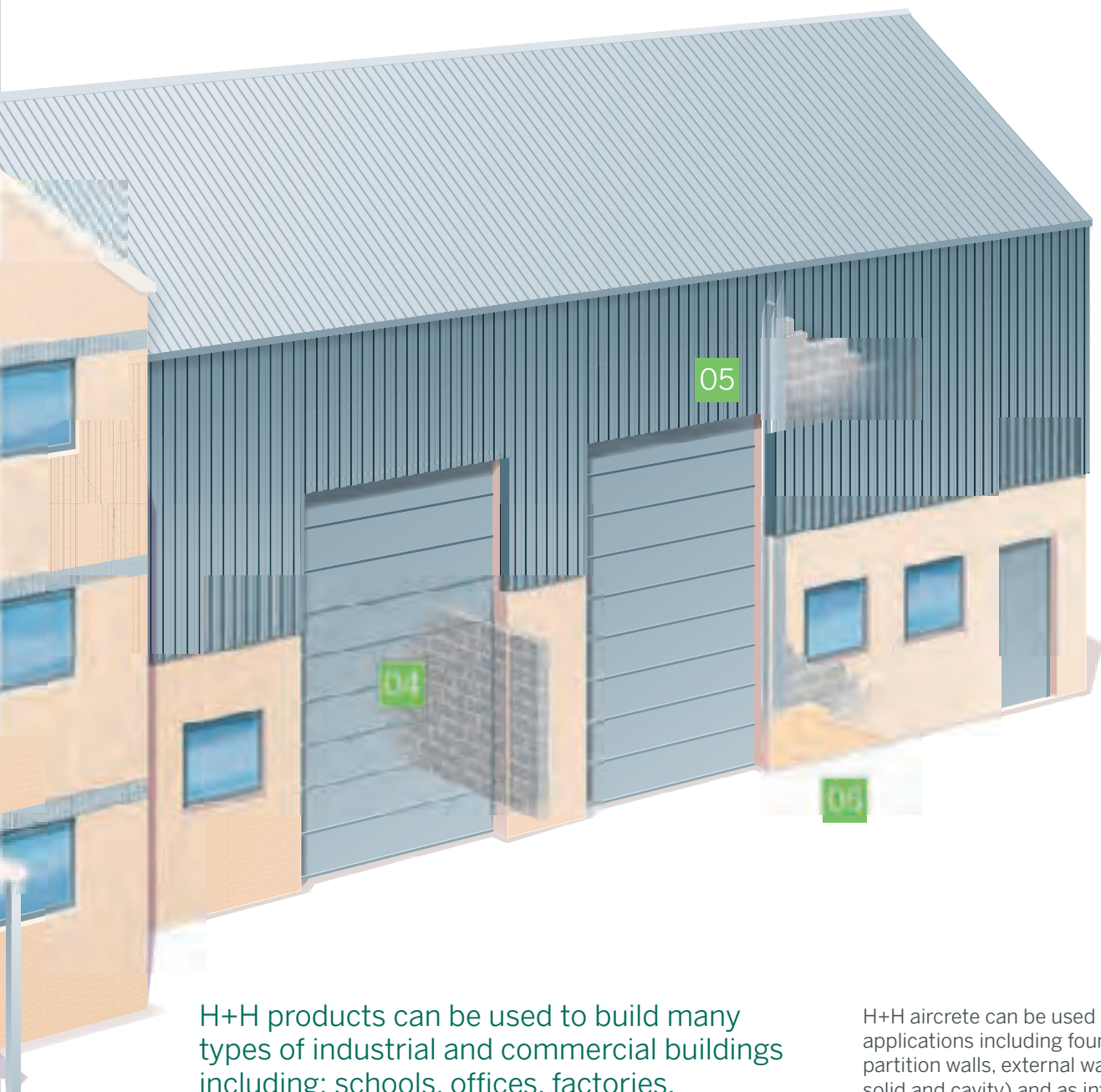
For fast and easy building (H+H's Thin-Joint aircrete offers even faster construction times), excellent acoustic and thermal resistance and a tough, durable, lightweight design, you'll find H+H aircrete is the answer.

The complete building material

Commercial, Public and Industrial

- 01 Solid Foundations
- 02 Partition Walls
- 03 External Walls (solid or cavity)
- 04 Fire Walls
- 05 Infill to steel and concrete frame





H+H products can be used to build many types of industrial and commercial buildings including; schools, offices, factories, warehouses and hospitals.

H+H aircrete can be used for many applications including foundations, partition walls, external walls (both solid and cavity) and as infill to steel and concrete framed buildings. A variety of finishes – brick, render, metal cladding etc, may be employed.

Build with confidence

The ultimate masonry product

The unique manufacturing process of H+H aircrete produces a micro cellular structure that sets the material apart from other types of masonry and offers the following characteristics:



Strong

- Loadbearing
- Suitable for foundations of houses and low-rise flats
- Supports up to 4 storeys without a structural frame
- Block strength from 2.9N/mm² to 8.7N/mm²

Excellent Thermal Insulation

- Reduces the amount of additional insulation
- Offers enhanced thermal insulation when used in walls, foundations and beam and block floors reducing the amount of insulation required
- Significantly contributes to satisfying Part L of the Building Regulations

Thermal Mass

- Helps to create a comfortable living environment
- Provides an even temperature range in winter or summer

Airtightness

- Can be used to achieve excellent airtightness on site

Excellent Sound Insulation

- Achieves 40dB sound insulation for internal partition walls (100mm blocks)
- Comfortably satisfies Part E of the Building Regulations by Pre-Completion Testing or Robust Detail methods of compliance
- Useable in flats and apartments as well as houses

Fireproof

- Fire resistant (100mm walls, up to 4 hours, 2 hours if load-bearing)
- Class 0 surface spread of flame
- Non-combustible to Class A1 (the highest class)

Robust and Durable

- Low wear and tear
- Resists sulfate attack in foundations
- Water-resistant
- Frost-resistant
- Does not rot or decay
- Excellent ballistic impact performance
- Is not susceptible to insect attack

Certification

- Approved by the BBA
- CE marked, meeting the latest European Standards
- Accepted by the NHBC
- Certified under BS EN ISO 9001
- All factories are BS EN ISO 14001 compliant
- H+H Ltd was the first company to achieve 'Very good' in the BES 6001:2008 standard for the Responsible Sourcing of Construction products, enabling the max 3 credits to be gained under the Code for Sustainable Homes
- H+H has been awarded BSEN 16001 for energy efficiency and the BSI kitemark for Energy Reduction Validation (ERV)

User-friendly

- Easy to fix to
- Can securely hold fixings for heavy loads
- Easy to work using simple hand tools
- Virtually maintenance-free
- Easy to achieve airtight construction
- Stretch wrapped for protection and tidiness
- Delivered where required on pallets for easy movement and storage

Lightweight

- Meets CDM requirements for manual handling
- Easy to transport
- Less than half the weight of the equivalent aggregate block
- Reduces the building load in high rise construction
- Can enable wider spans in beam and block floors

Versatile

- Accepts a wide range of finishes
- Multi-purpose – use for entire buildings
- Adaptable for use in innovative designs
- Easy to alter or extend during or after the build process

Sustainability & The Environment

- Easy to cut, reducing on-site waste
- Made using pulverised fuel ash (an industrial by-product)
- Constructions obtain the highest rating within the Green Guide to Housing Specification
- Light weight allows greater volumes delivered at once, reducing journeys
- Most production waste material is recycled back into the manufacturing process
- Can be recycled for use as aggregate
- Made using up to 80% recycled material
- 99% of raw materials are sourced within the UK



Thin-Joint System



Benefits

- Fast setting mortar
- No mortar 'swimming' allowing continuous laying
- Ease of mixing and laying mortar
- Dimensionally highly accurate blocks
- First fix trades can be brought forward
- Larger block formats used

H+H aircrete products can be bonded using either traditional mortar or by using Celfix mortar, provided by H+H, ideally suited to the Thin-Joint System.

The H+H Thin-Joint System combines the range of high quality accurately dimensioned aircrete Jumbo Bloks, Multi Plates and other formats, with Celfix, a specially developed thin layer mortar.

A classified Modern Method of Construction (MMC), this well-established BBA approved system utilises the fast setting Celfix mortar. Celfix allows a building to be constructed faster and to a better quality, with follow-on trades able to start work sooner in a weatherproof environment.

Speed

The Thin-Joint System allows construction times equivalent to off-site system-build solutions, without their associated lead times.

Quality

The improvements in build quality gained from the use of the Thin-Joint System are:

- Improved thermal performance
- Improved stability during construction
- Improved build accuracy of finished walls
- Reduction of site wastage
- Cleaner cavities

Flexibility

As with traditional building methods, the construction is carried out on site. This allows the builder to overcome problems which may have been overlooked or changed since the design stage and simplifies modifications to the building should it need to be extended or adapted to suit future lifestyles.













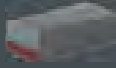












Applications

- Cavity walls (internal and external leaf)
- Solid walls
- Partition walls
- Separating walls
- Flanking walls
- Multi-storey buildings



H+H Product Range

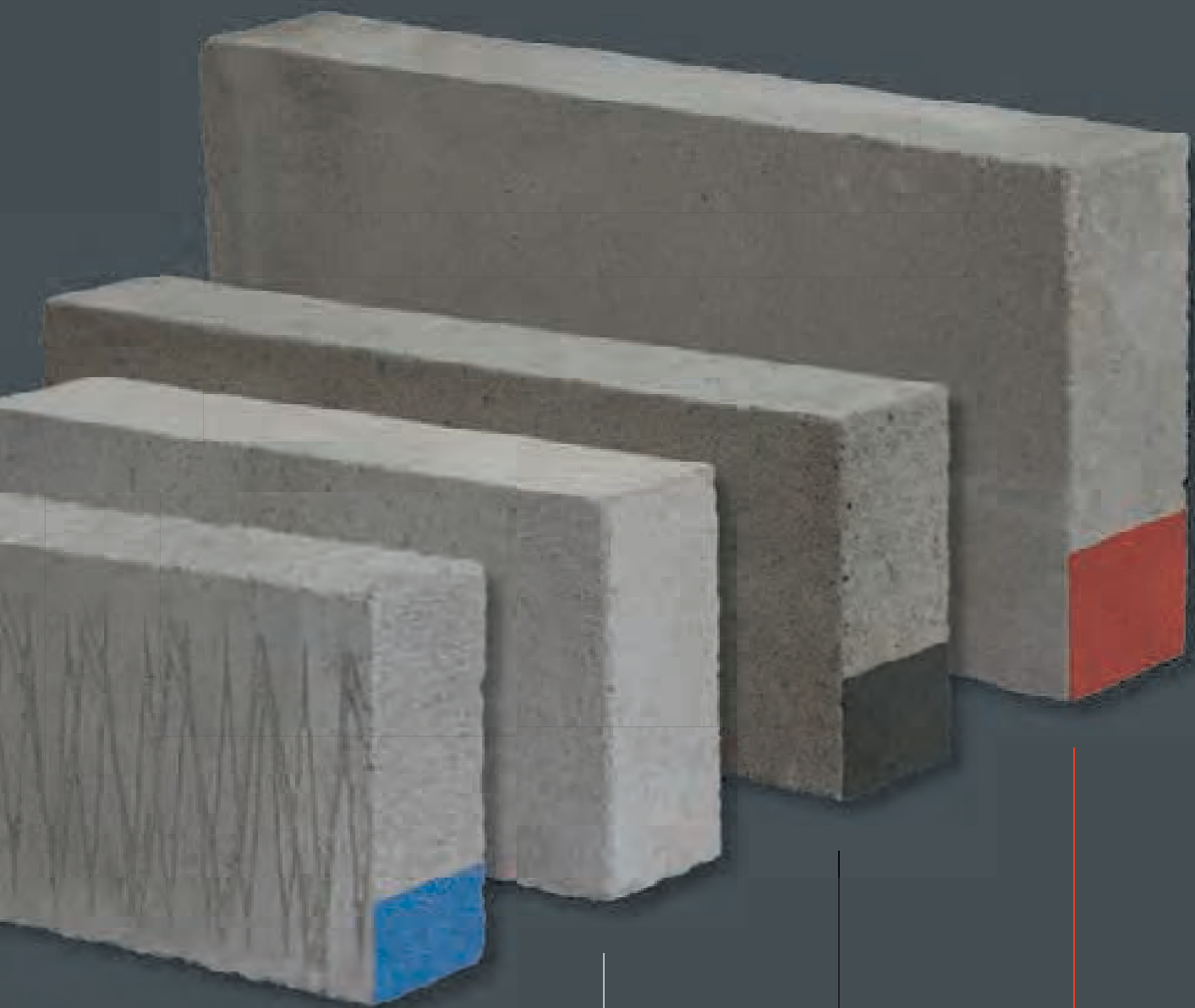
Grade and Finish Identification

	Solar Grade* (blue)	Standard Grade* (none)	High Strength Grade* (black)	Super Strength Grade* (red)
Celcon Foundation Block 325 x 215mm				
Scratch Marked Celcon Block 440 x 215mm and foundation Blocks (all sizes)				
Plain Face Celcon Block 440 x 215mm				
Celcon Block Coursing Unit 215 x 65mm				
Plain Face Celcon Plus Block 630 x 215mm				
Plain Face Jumbo Bloks 630 x 250mm				
Plain Face Multi Plates 630 x 350mm				

* Whilst the colour reference for Solar Grade, High Strength and Super Strength Grades remain consistent, the positioning of the line may vary.

Make the right choice

A simple guide



Solar Grade
(blue)

Standard Grade
(none)

High Strength Grade
(black)

Super Strength Grade
(red)

Solar Grade

Solar Grade is principally used where enhanced thermal performance is required.

With a superior thermal conductivity Solar Grade blocks are suitable for two storey buildings and can be used below DPC. Solar Grade is available in thicknesses from 100mm to 215mm, and are third party accredited under BBA and certified for use in the applications listed.

Applications

- Internal and external leaf of cavity walls
- Solid walls
- Partitions
- Flanking walls
- Below DPC

Note: Plain Faced Solar Grade aircrete is identified with a blue line on the end of the block. Whilst the colour remains consistent, the positioning of the line may vary.



Solar Grade



Standard Grade

Standard Grade is extremely versatile and can be used below DPC, as infill for beam and block flooring systems, as well as above the ground in the walling applications listed.

Celcon Blocks, Standard Grade are BBA certified and available in thicknesses from 75mm up to 355mm. Due to its all round performance, it is possible for 100mm Standard Block to be used throughout a build – in floors and all walls eliminating any site confusion.

Applications

- Internal and external leaf of cavity walls
- Solid walls
- Separating walls
- Partitions
- Multi-storey buildings
- Foundations
- Beam and Block floors
- Flanking walls



Standard Grade



High Strength Grade and Super Strength Grade



High Strength Grade



Super Strength Grade

Note: High Strength Grade and Super Strength Grade aircrete is identified with a black or red line respectively. Whilst the colour remains consistent, the positioning of the line may vary.

High Strength Grade and Super Strength Grade are used principally where higher compressive strengths are required such as in the foundations and lower storeys of three and four storey buildings, piers under high vertical loads and in multi-storey buildings.

Higher Strength grades are available in compressive strengths of 7.3N/mm² and 8.7N/mm² and in thicknesses from 100mm to 355mm. They are third party accredited under BBA and certified for use in the applications listed.



Applications

- Internal and external leaf of cavity walls
- Solid walls
- Separating walls
- Flanking walls
- Partitions
- Multi-storey buildings
- Foundations



Foundation Blocks

Celcon Foundation Blocks are commonly used in a range of thicknesses for use below ground level. Offering beneficial thermal performance, they are suitable for the support of cavity or solid walls, framed construction or suspended floors, including beam and block floors. They are resistant to damage caused by water penetration.

With exceptional resistance to freeze/thaw conditions and sulfate attack when they occur below ground level: BBA certificate 01/3816 confirms that all Celcon Foundation Blocks are suitable for use in soil conditions from DS1 to DS4.

Celcon Foundation Blocks can be laid below ground level without mortar perpend. Simply lay them with mortared horizontal bed

joints and then butt them together to prevent the passage of vermin.

Solar Grade can also be used below ground (See page 11 for information).

All Celcon Foundation Blocks may also be used above ground, with appropriate finishes, for solid wall construction.

Applications

■ Foundations



Face size	Standard Grade 325mm x 215mm			High Strength Grade 325mm x 215mm		
Block Thickness (mm)	300			300		
Block Weight (kg) [†]	16			19		
Face size	Standard Grade 440mm x 215mm			High Strength Grade 440mm x 215mm		
Block Thickness (mm)	275	300	355	275	300	355
Block Weight (kg) [†]	20	22	26	27	29	35
Face size	Standard Grade 630mm x 140mm			High Strength 630mm x 140mm		
Block Thickness (mm)	300			300		
Block Weight (kg) [†]	20			23		
	Standard Grade			High Strength		
Compressive Strength	3.6N/mm ²			7.3N/mm ²		
Thermal Conductivity	0.24 W/mK [#]			0.30 W/mK [#]		
Density	600 kg/m ³			730 kg/m ³		

Please note the thermal conductivity quoted for use below ground is different to that when used above DPC, because they may have a higher moisture content.

† Blocks weights at typical moisture content when laid. (Some manufacturers may quote weights which have not allowed for this.)

All shaded areas indicate that the product is a stock item at all factories, other sizes can be made to order subject to minimum quantities.

20.4 Bold green figures indicate that the product is above single person repetitive manual handling limits.



Foundation Block
Standard Grade



Foundation Block
High Strength Grade



Foundation Block
Standard Grade
(140mm course height)



Foundation Block
High Strength Grade
(140mm course height)



Celcon Blocks



Celcon Block
Solar Grade



Celcon Block
Standard Grade



Celcon Block
High Strength Grade



Celcon Block
Super Strength Grade

Celcon Blocks in Solar, Standard, High Strength and Super Strength Grades are the most commonly used aircrete block in the H+H range.

All Celcon Blocks are BBA certified, are fire resistant (100mm walls, up to 4 hours, 2 hours if loadbearing dependant upon the Grade) and have been classified 0 surface spread of flame and non-combustible to Class A1 (the highest class). Celcon Blocks are available in thicknesses from 75mm to 215mm and can be used in the applications listed.

For specific technical information on the Grades available in this range, please refer to pages 10 to 12.

Applications

- Internal and external leaf of cavity walls
- Solid walls
- Separating walls (except Solar Grade)
- Partitions
- Flanking walls
- Multi-storey buildings
- Foundations/Below ground level
- Beam and Block floors (except Solar Grade)



Face size	All Grades 440mm x 215mm				
Block Thickness (mm)	75	100	140	150	215
Solar Grade Weight (kg) [†]	-	5	8	8	12
Standard Grade Weight (kg) [†]	5	7	10	11	16
High Strength Grade Weight (kg) [†]	-	10	14	15	21
Super Strength Grade Weight (kg) [†]	-	10	14	15	-

	Solar Grade	Standard Grade	High Strength Grade	Super Strength Grade
Compressive Strength	2.9N/mm ²	3.6N/mm ²	7.3N/mm ²	8.7N/mm ²
Thermal Conductivity	0.11 W/mK	0.15 W/mK	0.18 W/mK	0.18 W/mK
Density	460 kg/m ³	600 kg/m ³	730 kg/m ³	730 kg/m ³

[†] Block weights at typical moisture content when laid.
(Some manufacturers may quote weights which have not allowed for this.)

All shaded areas indicate that the product is a stock item at all factories, other sizes can be made to order subject to minimum quantities.

Coursing Units

Coursing units are produced from the same material and are suitable for all the same applications as conventional size Celcon Blocks, allowing consistency within the building fabric.

They are suitable for use both externally and internally in loadbearing and non-loadbearing situations. Available to suit blocks with which they are supplied.

Loadbearing walls should not be constructed of Coursing Units as the only masonry unit.

Applications

- Protect against cold bridging
- Infill above doors and windows
- Coursing at floor and ceiling level
- Making up between joists



Coursing Units



Face size	Coursing Units 215mm x 65mm	
Unit Thickness (mm)	100	140
Standard Coursing Unit Weight (kg) [†]	1.1	1.5
High Strength Coursing Unit Weight (kg) [†]	1.2	1.7
Super Strength Coursing Unit Weight (kg) [†]	1.2	1.7

	Standard Grade	High Strength Grade	Super Strength Grade
Compressive Strength	3.6N/mm ²	7.3N/mm ²	8.7N/mm ²

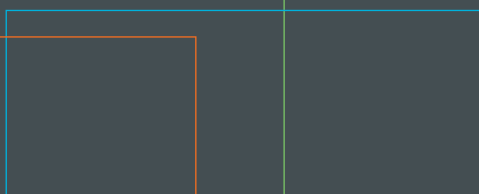
[†] Block weights at typical moisture content when laid.
(Some manufacturers may quote weights which have not allowed for this.)

All shaded areas indicate that the product is a stock item at all factories, other sizes can be made to order subject to minimum quantities.

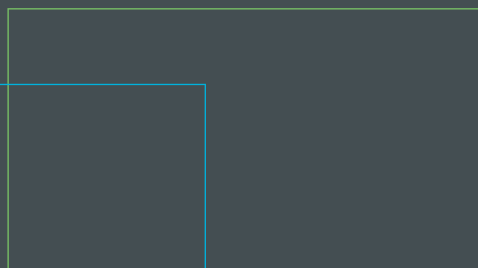
We are here to help you **build with ease**



Celcon Plus Blocks
(630mm x 215mm)



Jumbo Bloks
(630mm x 250mm)



Multi Plate
(630mm x 350mm)

Celcon Plus Blocks

Celcon Plus Blocks are 630mm long and provide an alternative to the 440 x 215mm face format block and are suitable for similar applications (see below).

This range is produced using the latest manufacturing technology which rank them amongst the most dimensionally accurate blocks available.

Celcon Plus Blocks are available in Solar Grade 2.9N/mm², Standard Grade 3.6N/mm², High Strength Grade 7.3N/mm² and Super Strength Grade 8.7N/mm².

Applications

- Internal and external leaf of cavity walls
- Solid walls
- Separating walls (except Solar Grade)
- Flanking walls
- Partitions
- Multi-storey buildings
- Foundations



Celcon Plus Block



Face size	Celcon Plus Blocks 630mm x 215mm				
Block Thickness (mm)	100	140	150	200	215
Solar Grade Weight (kg) [†]	8	11	12	16	17
Standard Grade Weight (kg) [†]	10	14	15	20	-
High Strength Grade Weight (kg) [†]	12	17	18	24	-
Super Strength Grade Weight (kg) [†]	12	17	18	24	-

	Solar Grade	Standard Grade	High Strength Grade	Super Strength Grade
Compressive Strength	2.9N/mm ² *	3.6N/mm ² *	7.3N/mm ² *	8.7N/mm ² *
Thermal Conductivity	0.11 W/mK	0.15 W/mK	0.18 W/mK	0.18 W/mK
Density	460 kg/m ³	600 kg/m ³	730 kg/m ³	730 kg/m ³

* Compressive strengths quoted are to the European Standard BS EN 771-4.

† Blocks weights at typical moisture content when laid. (Some manufacturers may quote weights which have not allowed for this.)

All shaded areas indicate that the product is a stock item at all factories, other sizes can be made to order subject to minimum quantities.

20.4 Bold green figures indicate that the product is above single person repetitive manual handling limits.

Jumbo Bloks and Multi Plates



Jumbo Blok



Multi Plate

H+H Jumbo Bloks offer beneficial productivity, with as few as 6.3 blocks completing 1m² of walling. Their use with thin layer construction enhances the speed of build on site.

H+H Multi Plates are a new generation of aircrete products that build on the efficiency of thin layer construction.

At over 2 times the size of a traditional (440 x 215mm) block, Multi Plates are laid using Celfix mortar and the Thin-Joint System and offer significant savings in site productivity.

Applications

- Internal and external leaf of cavity walls
- Separating walls (except Solar Grade)
- Flanking walls
- Partitions
- Multi-storey buildings



Face size	Jumbo Blok 630mm x 250mm		Multi Plates 630mm x 350mm
Block Thickness (mm)	100	140	100
Solar Grade Weight (kg) [†]	9	13	-
Standard Grade Weight (kg) [†]	12	17	17
High Strength Grade Weight (kg) [†]	14	20	20
Super Strength Grade Weight (kg) [†]	14	20	20

	Solar Grade	Standard Grade	High Strength Grade	Super Strength Grade
Compressive Strength	2.9N/mm ² *	3.6N/mm ² *	7.3N/mm ² *	8.7N/mm ² *
Thermal Conductivity	0.11 W/mK	0.15 W/mK	0.18 W/mK	0.18 W/mK
Density	460 kg/m ³	600 kg/m ³	730 kg/m ³	730 kg/m ³

* Compressive strengths quoted are to the European Standard BS EN 771-4.

[†] Block weights at typical moisture content when laid. (Some manufacturers may quote weights which have not allowed for this.)

All shaded areas indicate that the product is a stock item at all factories, other sizes can be made to order subject to minimum quantities.

simple solutions to meet demands

Craven Gardens, Melton Mowbray, Leicestershire

Craven Gardens is a collection of eight luxury detached family homes set in the gardens of a former hunting lodge located in the historic market town of Melton Mowbray.

Williams Homes used H+H's Thin Joint aircrete construction system to build the inner leaf of the cavity walls on this prestigious development for its impressive thermal and sound insulation properties and exceptional load bearing capabilities. The high quality, accurately dimensioned Jumbo Bloks and Thin Joint Celfix mortar are simple to work with. As a result, the system enabled the structure to be built extremely quickly, to a very high quality, which allowed follow on trades to start work sooner in a weatherproof environment.

Using Thin Joint Celfix mortar also helped reduce construction waste to make the site easier to manage. Jumbo Bloks were also used for the construction of the ground floor internal separating walls, while Celcon Blocks were used as a lightweight, thermally efficient infill on the beam and block floor.

Foundations

Traditional poured concrete trench foundation strips with concrete block walls.

External Walls

100mm aircrete Jumbo Bloks for the inner leaf using Thin Joint Celfix mortar. 100mm fully filled cavity using DriTherm semi-rigid cavity slabs with a traditional facing brick outer skin.

Internal Partition Walls

100mm aircrete Jumbo Bloks joined with Thin Joint Celfix mortar. Plasterboard dry lined with a plaster skim on the ground floor. Timber stud partitioning on the upper floors.








Ground Floor

Suspended beam and block construction floor with a Celcon Block infill to give a lightweight, thermally efficient solution.

First Floor

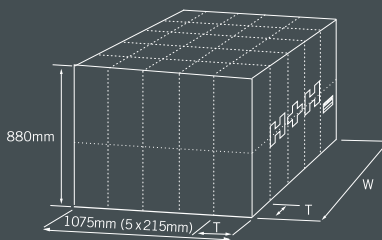
Timber joists set into the walls with a timber decking over. Roof Suspended beam and block construction floor with a Celcon Block infill to give a lightweight, thermally efficient solution.

Pack Information

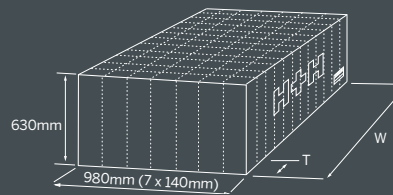
Block Thickness (mm) = T		75	100	140	150	200	215	275	300	355
	215mm	Celcon Blocks and Celcon Foundation Blocks – 440 x 215mm face size Blocks/m² laid 10 (10mm joints)								
		Coverage per pack (m²)	13.0	10.0	7.0	7.0	-	5.0	4.0	3.0
		Number of blocks per pack	130	100	70	70	-	50	40	30
		Pack width (mm) = W	975	1000	980	1050	-	1075	1100	900
		Pack weight – Solar Grade (kg)*	-	550	539	577	-	591	-	-
		Pack weight – Standard Grade (kg)*	710	730	715	765	-	785	800	655
		Pack weight – High Strength (kg)*	-	980	960	1030	-	1055	1075	1045
	140mm	Celcon Foundation Blocks – Blocks/m² laid 10.42 (10mm joints) 630 x 140mm								
		Coverage per pack (m²) – 10mm joint	-	-	-	-	-	-	2.7	-
		Number of blocks per pack	-	-	-	-	-	-	28	-
		Pack width (mm) = W	-	-	-	-	-	-	1200	-
		Pack weight – Standard Grade (kg)*	-	-	-	-	-	-	565	-
		Pack weight – High Strength/Super Strength (kg)*	-	-	-	-	-	-	655	-
	215mm	Celcon Foundation Blocks – Blocks/m² laid 13.27 (10mm joints) 325 x 215mm								
		Coverage per pack (m²) – 10mm joint	-	-	-	-	-	-	3	-
		Number of blocks per pack	-	-	-	-	-	-	40	-
		Pack width (mm) = W	-	-	-	-	-	-	1075	-
		Pack weight – Standard Grade (kg)*	-	-	-	-	-	-	646	-
		Pack weight – High Strength/Super Strength (kg)*	-	-	-	-	-	-	742	-
	215mm	Celcon Plus Blocks – 630 x 215mm face size Blocks/m² laid 6.94 (10mm joints) 7.29 (2mm joints)								
		Coverage per pack (m²) – 10mm joint	-	8.6	5.8	5.8	4.3	-	-	-
		Coverage per pack (m²) – 2mm joint	-	8.2	5.5	5.5	4.1	-	-	-
		Number of blocks per pack	-	60	40	40	30	-	-	-
		Pack width (mm) = W	-	1200	1120	1200	1200	-	-	-
		Pack weight – Solar Grade (kg)*	-	470	440	470	470	-	-	-
		Pack weight – Standard Grade (kg)*	-	620	575	620	620	-	-	-
		Pack weight – High Strength/Super Strength (kg)*	-	720	671	720	720	-	-	-
	250mm	Jumbo Blok – 630 x 250mm face size Blocks/m² laid 6.28 (2mm joints)								
		Coverage per pack (m²) – 2mm joint	-	7.6	5.1	-	-	-	-	-
		Number of blocks per pack	-	48	32	-	-	-	-	-
		Pack width (mm) = W	-	1200	1120	-	-	-	-	-
		Pack weight – Solar Grade (kg)*	-	440	410	-	-	-	-	-
		Pack weight – Standard Grade (kg)*	-	620	535	-	-	-	-	-
		Pack weight – High Strength/Super Strength (kg)*	-	720	625	-	-	-	-	-
	65mm	Coursing Units – 215 x 65mm face size								
		Coverage per pack (m²) – 10mm joint	-	10.0	5.0	-	-	-	-	-
		Coverage per pack (m²) – 2mm joint	-	8.6	4.3	-	-	-	-	-
		Pack height (mm) = H	-	800	560	-	-	-	-	-
		Number of units per pack	-	600	300	-	-	-	-	-
		Pack weight – Standard Grade (kg)*	-	646	453	-	-	-	-	-
		Pack weight – High Strength/Super Strength (kg)*	-	742	519	-	-	-	-	-
	350mm	Multi Plates – 630 x 350 x 100mm face size Blocks/m² laid 4.5 (2mm joints)								
		Coverage per pack (m²) – 2mm joint	-	8.0	-	-	-	-	-	-
		Number of blocks per pack	-	36	-	-	-	-	-	-
		Pack width (mm)	-	1200	-	-	-	-	-	-
		Pack weight – Standard Grade (kg)*	-	605	-	-	-	-	-	-
		Pack weight – High Strength/Super Strength (kg)*	-	705	-	-	-	-	-	-

*Pack weight excludes pallet

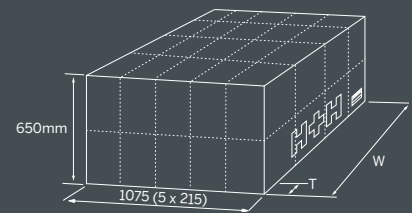
Celcon Blocks and Celcon Foundation Blocks
(440mm x 215mm)



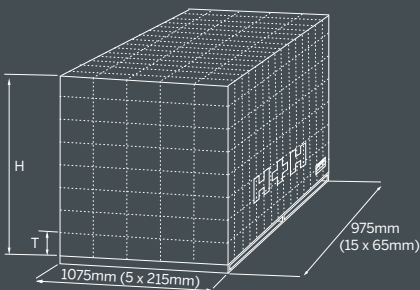
Celcon Foundation Blocks
(630mm x 140mm)



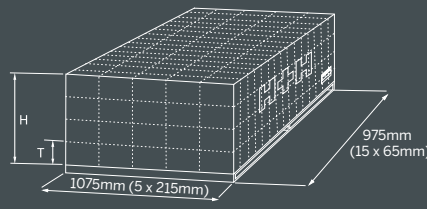
Celcon Foundation Blocks
(325mm x 215mm)



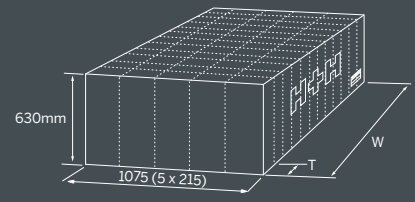
Celcon Coursing Units
(215mm x 65mm x 100mm)



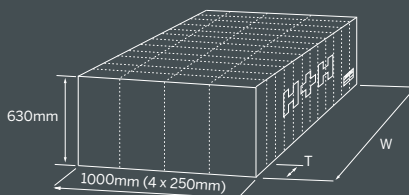
Celcon Coursing Units
(215mm x 65mm)



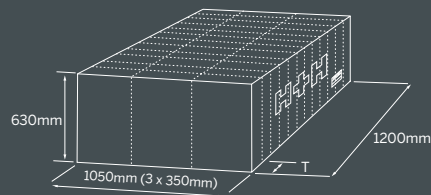
Celcon Plus Blocks
(630mm x 215mm)



Jumbo Bloks
(630mm x 250mm)



Multi Plates
(630mm x 350mm)



Note: Block thickness at 100mm unless otherwise stated

Below Ground



Heat loss from ground floors is most critical at their perimeter. H+H's range of Foundation Blocks can significantly improve thermal performance and reduce heat loss when used below ground level.

H+H Foundation Blocks are available in a range of thicknesses designed for the foundation walls, from concrete footings up. They are equally suitable for the support of cavity walls, solid walls and timber-framed construction.

H+H Foundation Blocks will reduce additional insulation; trenches can be back filled as soon as installation is complete, usually the same day.

The raw materials used in the production of Celcon Foundation Blocks give them their excellent resistance to sulfate attack and frost damage, thus making them ideal for use below ground in soil conditions unsuitable for many other types of masonry.

BBA appraisal includes assessment of the resistance of the Celcon Blocks to the freeze/thaw conditions likely to occur below ground level.

Celcon Foundation Blocks are easy to handle, have third party accreditation from the British Board of Agrément (BBA) and are deemed suitable for use by the NHBC and have Local Authority Building Control (National) type approved certification.

Foundation Blocks

- **One Celcon Foundation Block replaces two 100mm concrete blocks**
- **Trenches can be back filled as soon as installation is complete**
- **Impressive load-bearing capabilities can be achieved for multi-storey buildings**
- **Weigh a third of an equivalent dense aggregate block**
- **No cavity ties required or mortar mix in the cavity**
- **No need to mortar perp joints – blocks can be dry butted at perps**

Flooring



H+H aircrete is ideally suited as an infill for beam and block flooring systems.

Beam and block floors constructed using Celcon Blocks, are lightweight, easy, quick and safe to lay and provide a significant contribution to energy conservation due to their inherent thermal properties.

When used as a floorblock 100mm Celcon Blocks are recommended for infill. Celcon Blocks Standard Grade 440 x 215mm aircrete is

covered by a BBA certificate for use as infill in beam and block floors.

In addition, Celcon Block High Strength Grade can also be used successfully as floorblocks within the beam and block system.

When used as floorblocks, Celcon Blocks will also further improve thermal insulation in conjunction with H+H Foundation Blocks.

External Walls

External walls can be built using either cavity or solid construction, with each having distinct advantages in specific situations.

Solid Walls

Solid walls are a very fast and effective solution for wall construction, which is rapidly gaining popularity. H+H aircrete's close cell structure results in excellent resistance to water penetration and easily meets the requirements of Part C of the Building Regulations.

In solid wall construction H+H aircrete can be used with a variety of external finishes such as render, brick slips and cladding systems. Additional insulation can be added by the use of proprietary insulated systems and/or insulated plaster board.

Cavity Walls

In a cavity external wall construction each leaf fulfills specific requirements. The external leaf protects the structure from the penetration of moisture whilst the inner leaf provides the main structural support of the building. The overall wall construction must also meet the thermal requirements of the Building Regulations.

The combination of H+H aircrete's moisture resistance, strength and thermal insulation performance means they can be used for both the internal and the external (with appropriate finish) leaves of a cavity wall. This provides the designer with a wide choice of solutions using



H+H products for most types of building, from residential and commercial to industrial; are value engineered and free from technical risk.

Internal Walls

H+H aircrete is ideal for use in partitions between rooms and for separating walls between flats, apartments and houses.

Separating Walls and associated Flanking Walls

H+H aircrete has excellent sound insulation properties and is suitable for the construction of separating walls and their associated flanking walls, allowing continued use of familiar construction methods.

Solutions meeting the requirements of Part E of the Building Regulations are available using either Pre Completion Testing (PCT) or the Robust Detail (RD) methods of compliance for both houses and flats or apartments. Many aircrete RD constructions achieve high credit ratings for the Code for Sustainable Homes (CfSH).

Internal Partition Walls

H+H aircrete is ideally suited for the construction of both loadbearing and non-loadbearing internal walls. Using H+H products creates a more robust partition, adding overall rigidity to the structure making it less prone to damage and easier to fix to than studwork.

Due to the lightweight nature of H+H aircrete, timber joists can support partitions constructed from aircrete. The joists must be properly designed and sized to suit the span and loading. Steel or concrete beams, concrete floors or beam and block floors can also support aircrete partitions.



H+H aircrete partitions easily meet the sound insulation requirements of current Building Regulations.

Celfix Mortar

With an initial bond time of around 15 minutes, storey height panels of masonry can be achieved in one lift and structurally loaded within 1-2 hours.



Celfix is supplied by H+H, dry in 25kg bags and should be added to water (approx. 4.5 litres per bag). Applied with either a scoop or sledge to maintain a consistent joint thickness of 2mm, it remains workable within the bucket for several hours.

When working in winter conditions, it is possible to lay Celfix mortar in temperature of 0°C and rising.

Applications

- Cavity walls (internal and external leaf)
- Solid walls
- Partition walls
- Separating walls
- Flanking walls
- Multi-storey buildings

Celfix Mortar Approximate yield per 25kg bag – 2mm joints

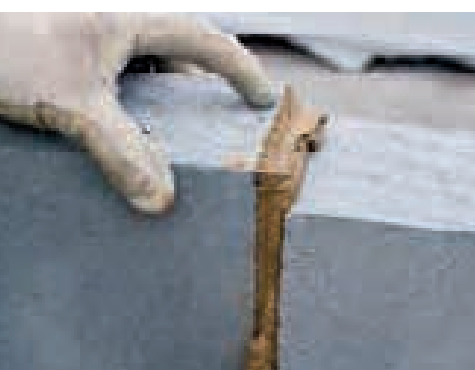
Block Thickness (mm)*		100	140	215
Plus Block 630 x 215mm (7.29 blocks/m ² laid)	m ² blockwork	6.86	4.90	3.19
	No. of blocks	50.0	35.7	23.2
Jumbo Block 630 x 250mm (6.28 blocks/m ² laid)	m ² blockwork	7.65	5.46	-
	No. of blocks	48.0	34.2	-
Multi Plates 630 x 350mm (4.50 blocks/m ² laid)	m ² blockwork	9.60	-	-
	No. of blocks	43.1	-	-

* Representative sample of block sizes only

Please note that these figures are based on experience of 'typical' yield figures for a single bag of 25kg Celfix when constructing Thin-Joint blockwork on site. These yields will vary with site requirements and operative technique or ability.

Traditional Mortar System

As a general rule, cement:lime:sand mortars give a stronger bond than plasticised mortars of a similar compressive strength.



Mortar designation (M4) is the strongest that should be used with traditional blockwork above DPC level and is generally suitable, provided structural considerations do not demand a stronger mix and the masonry is protected during construction from saturation and freezing.

Below DPC level, mortars of designation (M6) (1:½:4 cement:lime:sand) particularly where there is a risk of freeze/thaw, or (M4) may be used, according to soil conditions.

Recommended Mortar Types

Type of Mortar	Proportion by volume	Mortar Strength	
		Designation	Class
Celfix (thin layer) Mortar	-	-	M10
Cement:lime:sand	1:½:4*	(ii)*	M6*
Cement:lime:sand	1:1:6	(iii)	M4
Cement:sand with plasticiser	1:6	(iii)	M4
Masonry cement:sand	1:5	(iii)	M4

* For use below DPC

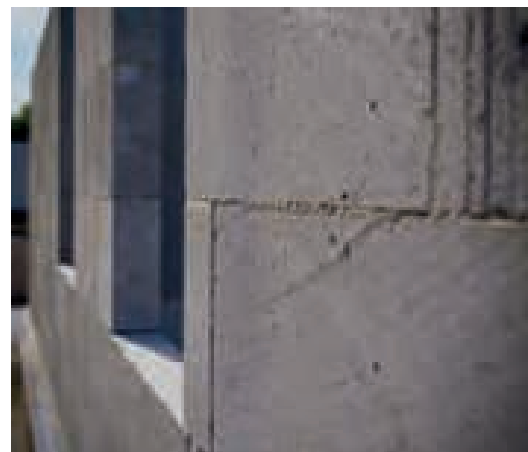
Note: H+H does not supply materials required to create traditional mortar

Simple Solutions to Building Regulations (structure)

Guidance for block strengths suitable for low rise housing is given in Approved Document A to the Building Regulations (England and Wales), the Small Buildings Structural Guidance document for the Building (Scotland) Regulations and BS 8103-2.

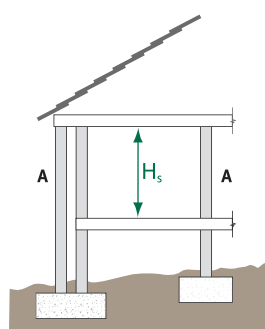
These documents give simple rules and guidance on block strength requirement based on various criteria including limiting dimensions for wall heights, lengths, openings and floor/roof spans.

The structural requirements are summarised below. It should be remembered that structural calculations can still be carried out, which may lead to more economical solutions.

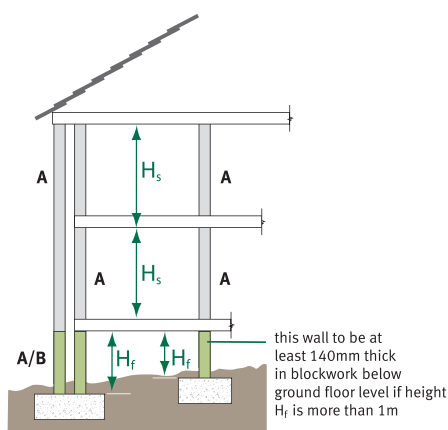


Declared Compressive Strength of H+H Products

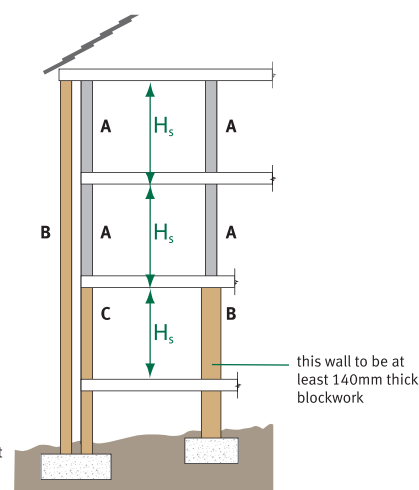
	Solar Grade	Standard Grade	High Strength Grade	Super Strength Grade
BS EN 771-4	2.9N/mm ²	3.6N/mm ²	7.3N/mm ²	8.7N/mm ²



Single storey



Two storeys



Three storeys

Key: Min strength

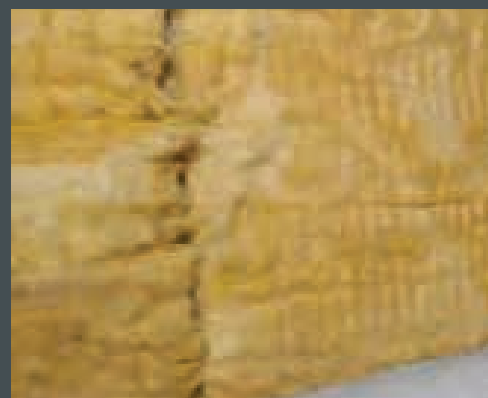
A	2.9N/mm ² where H _s is 2.7m max
A/B	H _i less than or equal to 1m – 2.9N/mm ² H _i greater than 1m – 7.3N/mm ²
B & C	7.3N/mm ²

Notes

1. If H_i is not more than 2.7m, the compressive strength of blocks used in the wall should be as indicated by the key.
2. If H_s is more than 2.7m, the compressive strength of blocks used in the wall should be at least Condition B, or as indicated by the key whichever is greater.
3. If the external wall is solid construction, the blocks should have a compressive strength of at least that shown for the internal leaf of a cavity wall in the same position.
4. Timber roof construction, 12m max span.
5. Timber or concrete floor, 6m max span.
6. Wall lengths 12m max.

Simple Solutions to Building Regulations (thermal)

H+H products' high thermal performance allows cost effective solutions to meet the current and increasingly stringent future requirements of Part L of the Building Regulations (England and Wales) and Section 6 of the Technical Handbook to the Building (Scotland) Regulations.



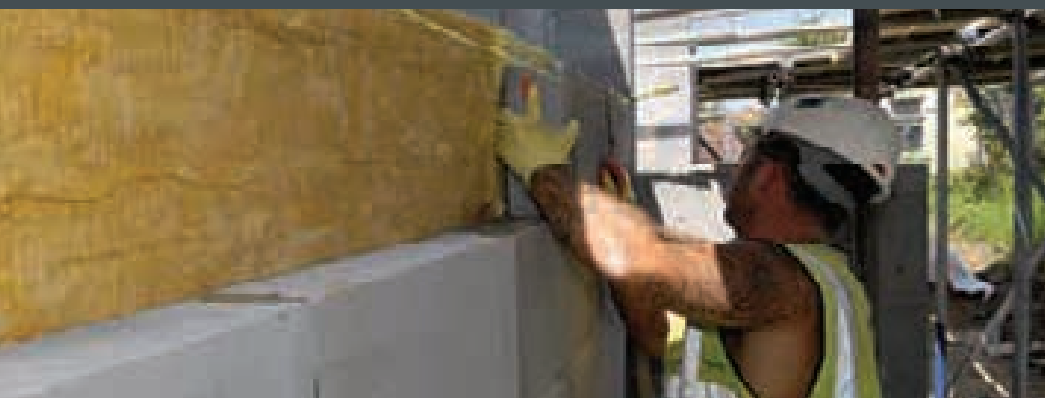
	0.30W/m²K	0.28W/m²K	0.25W/m²K
	Clear Cavity Brick outer leaf Clear cavity 100mm Standard Grade 25mm TW50 between battens + 40mm Thermaline Super 0.30W/m²K	Clear Cavity Brick outer leaf Clear cavity 100mm Standard Grade 60mm ThermaLine SUPER 0.27W/m²K	Clear Cavity Brick outer leaf Clear cavity 100mm Standard Grade 70mm ThermaLine SUPER 0.24W/m²K
	Partial Fill Cavity Brick outer leaf Clear cavity 40mm Kingspan TW50 100mm Standard Grade Any finish* 0.30W/m²K	Partial Fill Cavity Brick outer leaf Clear cavity 45mm Kingspan TW50 100mm Standard Grade Any finish* 0.28W/m²K	Partial Fill Cavity Brick outer leaf Clear cavity 50mm Kingspan TW50 100mm Standard Grade Plasterboard on dabs 0.25W/m²K
	Fully Filled Cavity Brick outer leaf 75mm Dritherm 32 100mm Standard Grade Lightweight plaster 0.30W/m²K	Fully Filled Cavity Brick outer leaf 100mm Dritherm 37 100mm Standard Grade Plasterboard on dabs 0.28W/m²K	Fully Filled Cavity Brick outer leaf 100mm Dritherm 32 100mm Standard Grade Plasterboard on dabs 0.25W/m²K
	Solid Wall – Internal Insulation Render finish 215mm Solar Grade 40mm ThermaLine Super 0.30W/m²K	Solid Wall – Internal Insulation Render finish 215mm Solar Grade 50mm ThermaLine Super 0.26W/m²K	Solid Wall – Internal Insulation Render finish 215mm Solar Grade 60mm ThermaLine Super 0.23W/m²K
	Solid Wall – External Insulation Render finish 55mm EPS# OR 30mm Kingspan K5 215mm Solar Grade Plasterboard on dabs 0.30W/m²K	Solid Wall – External Insulation Render finish 75mm EPS# OR 40mm Kingspan K5 215mm Solar Grade Any finish* 0.28W/m²K	Solid Wall – External Insulation Render finish 85mm EPS# OR 45mm Kingspan K5 215mm Solar Grade Any finish* 0.25W/m²K

Notes:

* Any internal finish assumes dense plaster as worst case. Lightweight plaster or Plasterboard on dabs may also be used

* EPS insulation assumed to be tongue and groove or lapped jointed

Above U-values are not exhaustive, please contact our Technical Department for other constructions or grades of block not shown



Extensions

For extensions to existing dwellings 0.28W/m²K would be appropriate for England, 0.22W/m²K for Scotland and 0.21W/m²K for Wales.

Below are just a small sample of the wall solutions available with H+H aircrete blocks.

0.22W/m ² K	0.20W/m ² K	0.18W/m ² K	0.15W/m ² K
Clear Cavity Brick outer leaf Clear cavity 100mm Standard Grade 80mm ThermaLine SUPER 0.21W/m²K	Clear Cavity Brick outer leaf Clear cavity 100mm Standard Grade 90mm ThermaLine SUPER 0.19W/m²K	Clear Cavity Brick outer leaf Clear cavity 100mm Standard Grade 25mm TW50 between battens +80mm ThermaLine SUPER 0.18W/m²K	Clear Cavity Brick outer leaf Clear cavity 100mm Standard Grade 40mm TW50 between battens +90mm ThermaLine SUPER 0.15W/m²K
Partial Fill Cavity Brick outer leaf Clear cavity 65mm Kingspan TW50 100mm Standard Grade Plasterboard on dabs 0.22W/m²K	Partial Fill Cavity Brick outer leaf Clear cavity 75mm Kingspan TW50 100mm Standard Grade Plasterboard on dabs 0.20W/m²K	Partial Fill Cavity Brick outer leaf Clear cavity 100mm Kingspan TW50 100mm Standard Grade Any finish* 0.18W/m²K	Partial Fill Cavity Brick outer leaf Clear cavity 125mm Kingspan K8 100mm Standard Grade Lightweight plaster 0.15W/m²K
Fully Filled Cavity Brick outer leaf 150mm Dritherm 37 100mm Standard Grade Plasterboard on dabs 0.22W/m²K	Fully Filled Cavity Brick outer leaf 150mm Dritherm 32 100mm Standard Grade Any finish* 0.20W/m²K	Fully Filled Cavity Brick outer leaf 100mm Xtratherm CavityTherm 100mm Standard Grade Plasterboard on dabs 0.18W/m²K	Fully Filled Cavity Brick outer leaf 150mm Xtratherm CavityTherm 100mm Standard Grade Any finish* 0.14W/m²K
Solid Wall – Internal Insulation Render finish 215mm Solar Grade 70mm ThermaLine Super 0.20W/m²K	Solid Wall – Internal Insulation Render finish 215mm Solar Grade 70mm ThermaLine Super 0.20W/m²K	Solid Wall – Internal Insulation Render finish 215mm Solar Grade 80mm ThermaLine Super 0.18W/m²K	Solid Wall – Internal Insulation Render finish 215mm Solar Grade 25mm TW50 between battens +90mm ThermaLine SUPER 0.15W/m²K
Solid Wall – External Insulation Render finish 115mm EPS# OR 55mm Kingspan K5 215mm Solar Grade Any finish* 0.22W/m²K	Solid Wall – External Insulation Render finish 130mm EPS# OR 65mm Kingspan K5 215mm Solar Grade Any finish* 0.20W/m²K	Solid Wall – External Insulation Render finish 165mm EPS# OR 75mm Kingspan K5 215mm Solar Grade Any finish* 0.18W/m²K	Solid Wall – External Insulation Render finish 215mm EPS# OR 95mm Kingspan K5 215mm Solar Grade Any finish* 0.15W/m²K

simple solutions to meet demands

Apple Tree Court, Tewkesbury, Gloucestershire

Having used H+H's Thin-Joint System for more than 10 years, Sherborne Homes again opted for this effective build system when working on their very first housing association project. The Thin-Joint System provides the Sherborne Homes contractors with a hassle free building solution and a great support package that allows for fast and effective construction. Sherborne Homes has an established relationship with H+H and has used the H+H Thin-Joint System in previous building projects. Due to previous positive experiences the team at Sherborne Homes were confident of again achieving pleasing results. The Thin-Joint System was specified along with Celcon Foundation Blocks in conjunction with Celcon Plus Blocks.

Reason for choosing H+H aircrete products

The rapid rate at which the internal leaf of the building can be constructed using Celcon Plus Blocks and the Thin-Joint System is a large factor in Sherborne Homes' continued use of H+H products. Superb service was provided both prior to construction, and onsite, where H+H demonstrators assisted new staff members with the application process and training.

Products Used / Aircrete Specification

H+H Thin-Joint System along with Celfix Mortar, Celcon Foundation Blocks and Celcon Plus Blocks.

Foundations

The foundations for all eight units were constructed using the trench fill method using H+H Celcon Foundation Blocks with the H+H Thin-Joint System. A narrow trench allows for minimal excavation and allows blocks to be laid safely and effectively.

External Walls

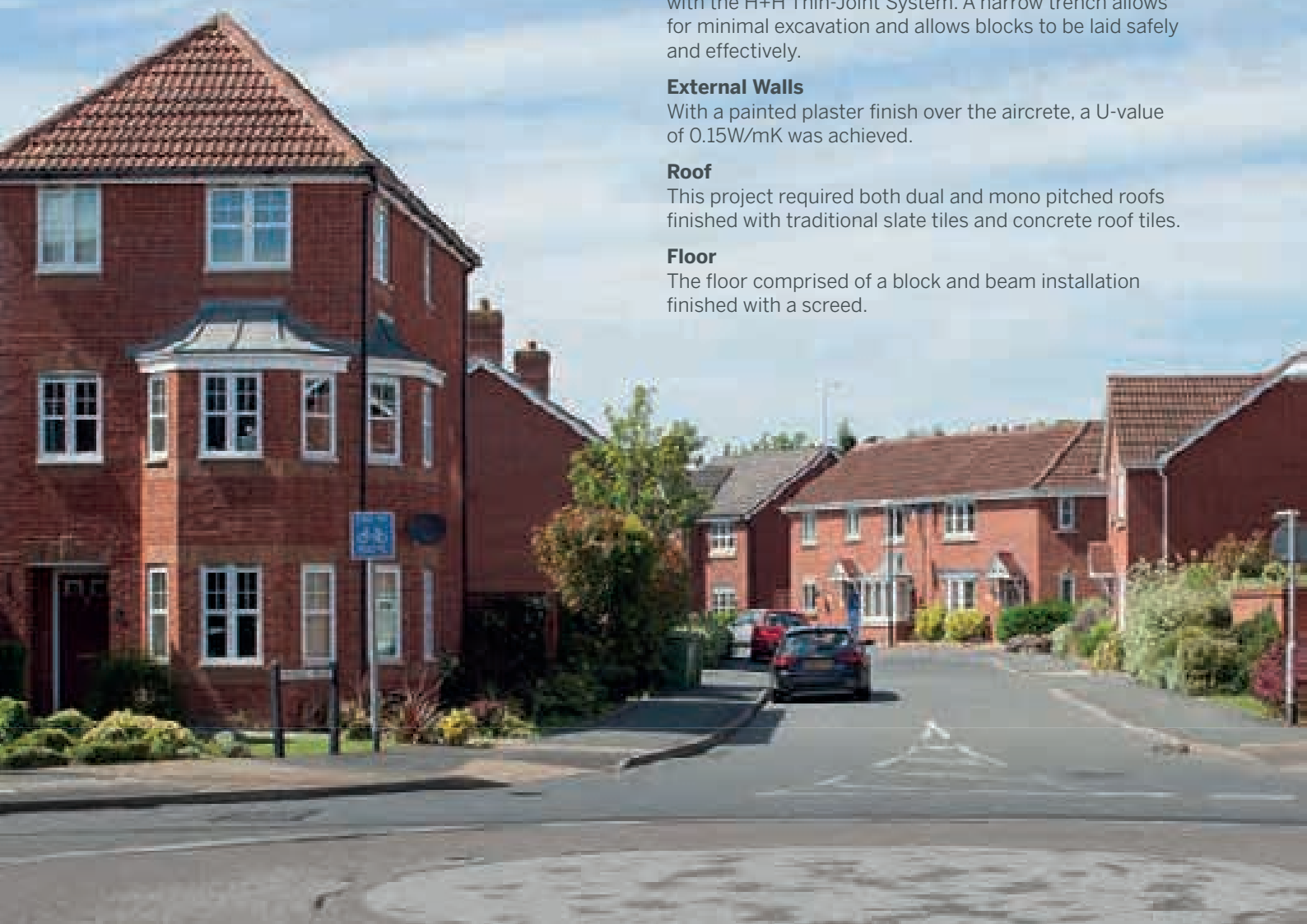
With a painted plaster finish over the aircrete, a U-value of 0.15W/mK was achieved.

Roof

This project required both dual and mono pitched roofs finished with traditional slate tiles and concrete roof tiles.

Floor

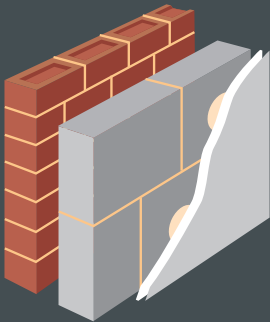
The floor comprised of a block and beam installation finished with a screed.



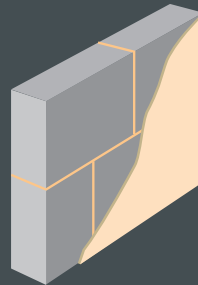
Simple Solutions to Building Regulations (sound)

H+H UK products can easily achieve the requirements of National Building Regulations and Standards.

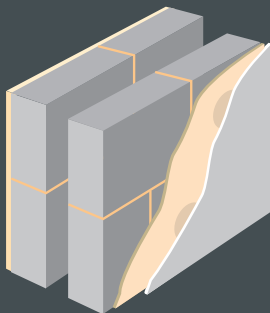
Excellent sound insulation qualities, which allow continued use of familiar construction methods with only minimal modifications to achieve the regulations for internal walls, floors and separating (party) walls and flanking walls.



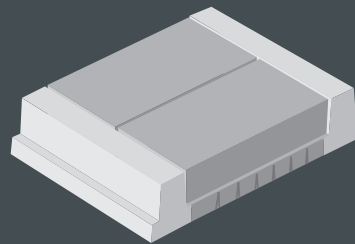
Flanking Wall
100mm Any Celcon Block
Any finish



Internal Partition Wall
100mm Celcon Block Standard Grade
Any finish
($R_w = 40\text{dB}$)



Separating Wall
See Pages 30-31



Internal Beam and Block Floor
Minimum 40mm screed (sand/cement)
100mm Celcon Block Standard Grade
440 x 215mm
12.5mm plasterboard ceiling ($R_w = 40\text{dB}$)



Robust Details for Acoustic Performance

What is a Robust Detail?

A Robust Detail, for Part E of Building Regulations, is a separating wall or floor construction which has been assessed and approved by Robust Details Limited (RDL).

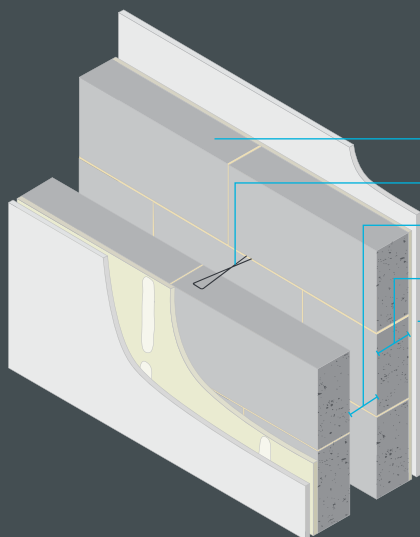
In order to be approved, each Robust Detail must:

- be capable of consistently exceeding the performance standards given in Approved Document E to the Building Regulations for England and Wales
- be practicable to build
- be reasonably tolerant to workmanship

Robust Detail designs are pre-tested to higher standards than those required by Approved Document E of the Building Regulations before being approved by Robust Details Limited (RDL). Therefore, if you register your build with RDL and build in compliance with Robust Details, you won't have to carry out pre-completion sound testing.



E-WM-6 Separating Wall – Cavity Masonry



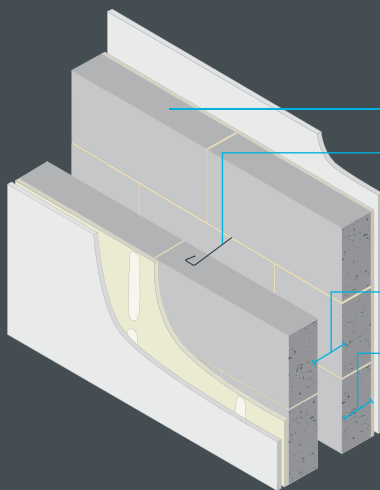
Aircrete blocks
Render and gypsum-based board on dabs

Block type	H+H Standard or High Strength Grades
Wall ties	Approved Document E Tie Type A
Cavity width	75mm (min) (may be clear or fully insulated with mineral wool with a maximum density of 40 kg/m ²)
Block thickness	100mm (min) each leaf
Wall finish	Gypsum-based board (nominal 8 kg/m ² mounted on dabs on cement:sand render (nominal 8mm) with scratch finish. Render mix must not be stronger than 1:1:6 and not stronger than background
External (flanking) wall	Masonry (both leaves) with 50mm (min) cavity – clear, fully filled or partially filled with insulation

Note:

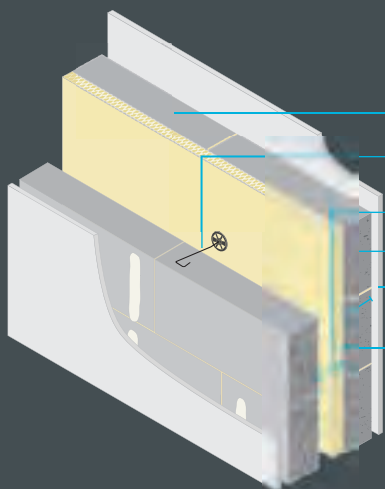
All RDL Information provided here is accurate at the time of going to press.

For details of any changes and to keep up to date with current assessments, visit www.robustdetails.com

E-WM-10 & 13 Separating Wall – Cavity Masonry (thin joint)

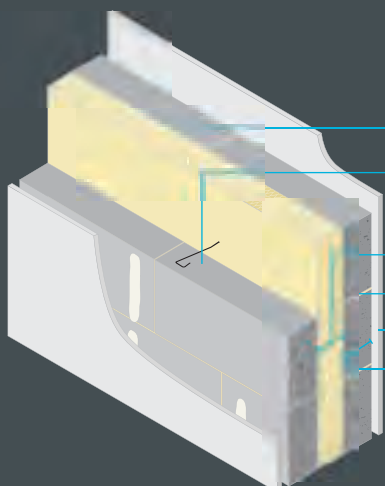
Aircrete Thin-Joint System
Render and gypsum-based board on dabs

Block type	H+H Standard or High Strength Grades
Wall ties	For E-WM-10 , wall ties must be Ancon Building Products Staifix HRT4 or Clan PWT4 installed at not more than 2.5 ties per square metre For E-WM-13 , no wall ties are to be inserted in the separating wall (this RD can give up to 3 credits in the cfsh)
Cavity width	75mm (min) (may be clear or fully insulated with mineral wool with a maximum density of 40 kg/m ³)
Block thickness	100mm (min) each leaf
Wall finish	Gypsum-based board (nominal 8 kg/m ²) mounted on dabs on cement:sand render (nominal 8mm) with scratch finish. Render mix must not be stronger than 1:1:6 and not stronger than background
External (flanking) wall	Masonry (both leaves) with 50mm (min) cavity – clear, fully filled or partially filled with insulation

E-WM-15 Separating Wall – Cavity Masonry

Aircrete blocks
35mm (minimum) Saint Gobain-Isover RD35 Acoustic Batt
Gypsum-based board (nominal 9.8 kg/m²) on dabs (no render parge coat)

Block type	H+H Standard or High Strength Grades
Wall ties	Insulation retaining wall ties to Approved Document E 'Tie type A'
Cavity width	75mm (min) leaf-to-leaf
Block thickness	100mm (min) each leaf
Wall finish	Gypsum-based board (nominal 9.8 kg/m ²) mounted on dabs
Insulation	35mm (min) Isover RD35 mineral wall acoustic batt
External (flanking) wall	Masonry (both leaves) with 50mm (min) cavity – clear, fully filled or partially filled with insulation

E-WM-23 +24 Separating Wall – (traditional or thin joint) (these RDs can give up to 3 credits in the CfSH)

Aircrete blocks
100mm (minimum) Superglass Party Wall Roll (E-WM-23 only)
100mm (minimum) Isover RD Party Wall Roll (E-WM-24 only)
Gypsum-based board (nominal 8.0 kg/m²) on dabs (no render parge coat)

Block type	H+H Standard or High Strength Grades
Wall ties	Ties to Approved Document E 'Tie type A'. For thin joint, wall ties must be Ancon Building products Staifix HRT4 or Clan PWT4
Cavity width	100mm (min) leaf-to-leaf
Block thickness	100mm (min) each leaf
Wall finish	Gypsum-based board (nominal 8.0 kg/m ²) mounted on dabs
Insulation	Superglass Party Wall Roll (E-WM-23 only) Isover RD Party Wall Roll (E-WM-24 only)
External (flanking) wall	Masonry (both leaves) with 50mm (min) cavity – clear, fully filled or partially filled with insulation

Product Marking

The product marking on packs includes the requirements under the Construction Products Regulation 2011 (CPR). From the 1st July 2013 the CE mark must be applied to all products. Further to this a web address is also being applied to the pack which gives details of each product and the relevant Declaration of Performance (DoP) and CE marking. See www.hhcelcon.co.uk/CPR



Packaging Layout

The layout of the updated product marking is shown above:

The key changes are:

- CPR web address added
- Factory, Year, Day, and Time font size has been increased to improve readability. Pollington II factory code changed from P2 to Q to avoid confusion with the year identifier

Q = Factory Identifier	B = Borough Green P = Pollington I Q = Pollington II
3 = Year Identifier	3 = 2013 4 = 2014 5 = 2015 etc.
178 = Day number	A spreadsheet giving the date from the day number is available if required
18.38 =	Time of Day

CDM Regulations

The Health and Safety Executive (HSE) deals with all aspects of construction work in Great Britain. Construction is Britain's biggest industry and one of its most dangerous. The HSE has an initiative to improve health and safety standards during all construction work. This includes ensuring that building sites are adhering to safety procedure such as manual handling.

Block Weights

The Construction Industry Advisory Committee (CONIAC) Guidance suggests that repetitive handling of blocks over 20kg can increase risk of injury, therefore when designing or specifying blocks, the lightest block that fulfills the performance criteria should be chosen.

Celcon Block weights can be found on individual product pages within this guide, see pages 12-18.

Aircrete Solutions

The cellular structure of aircrete ensures a product that is both strong and lightweight, thus providing significant productivity and health and safety advantages.

Haulage Details

An articulated crane vehicle has major advantages for the customer and the environment.

The size of a delivery is dependent on:

- quantities ordered
- the product ordered
- the vehicle it is delivered on

To help gain maximum benefit we ask that when placing an order you simply request a full load.

Commercial Benefits

- Fewer drops at site
- Less yard time lost
- Less paperwork
- More time for dealing with customers

And its good for the environment

- Less vehicles clogging up the road
- Lower CO₂ emissions
- Less noise for the branch /site neighbours

General Service Charter Haulage Conditions

- a) Load sizes are based on fully loaded articulated vehicles with a gross capacity of 44 tonnes.
- b) A level and firm hard standing must be available to receive deliveries. Pallets if required (and have not been requested on the delivery) should already be laid out.
- c) Waiting Time – The first hour on site or at merchant yard will not usually incur a waiting time penalty, but there will be a charge of £70.00 per hour thereafter (or part thereof).
- d) Prices quoted are based on full lorry loads delivered to mainland UK or mainland ports only, these will be delivered free of charge subject to Waiting Time above and clause 'i' below.
- e) Incomplete loads (see table of full load sizes below) will incur a charge for each pack less than full load capacity. The charge is £15.00 per pack within standard delivery area and £30.00 per pack outside the standard delivery area with a minimum charge £100 with a maximum 10 working day lead-time for delivery.
- f) Rigid vehicles are only available in restricted areas with a charge of £250 per vehicle and a maximum of up to 10 working days lead-time for delivery.
- g) Split loads are available at a charge of £100 per load within a 10-mile radius (ordered by a builders merchant for delivery part to site and remainder to the Merchants yard) if over 10 miles apart additional charges will apply.
- h) Dropping a trailer from a draw bar and making multiple drops from the rigid wagon can be arranged for a fee of £50 plus any waiting time per c) above.
- i) Cancellations made after 12pm (midday) the day prior to dispatch or once the vehicle has been loaded will be subject to a restocking charge of 20% of the invoice value and cost of haulage already incurred if appropriate.
- j) Refusal on Delivery will be charged at cost of transport, restocking charges, plus unloading and reloading if applicable.

- k) A diversion charge, at cost of transport, will be payable should an order be diverted or returned before or upon arrival onsite or at the depot.
- l) Credit for returned goods will only be allowed after deduction of haulage and restocking costs of resalable product.
- m) If a driver is requested to park outside a site due to lack of space and a parking ticket is enforced, the charge will be forwarded to the customer for reimbursement.

Site Completions

- i Each site (where we have delivered full loads) for the purpose of site completion will be allowed one incomplete load at no additional charge, with a maximum of 10 working days lead-time for delivery

Deliveries

- i Our normal delivery hours are between 8am and 4pm. Other times can be arranged but must be agreed in advance.
- ii 24-hour notice of delivery will be given.
- iii Full loads of stocked product delivered on articulated vehicles will be made within 3-5 working days after receipt of order subject to market conditions and product availability.

Pallet Information

- i All deliveries to a Builders Merchants yard will be made on pallets.
- ii H+H UK's Coursing Unit deliveries whether to depot or site will be made on pallets.
- iii Deliveries to site are not made on pallets. Non-returnable pallets can be provided at £6.00 per pallet.
- iv A free of charge pallet collection service is available. Phone 0800 282488 to arrange. Collections require a minimum of 50 pallets from any supplier, not just H+H UK Ltd. Our pallet collection partner will manage the re-distribution for you.

Typical Full Loads (Maximum Packs per Vehicle)

Product Type	Articulated Vehicles	
	440 x 215mm blocks	630 x 140/215/250mm blocks
Solar (2.9N/mm ²)	40	50
Standard (3.6N/mm ²)	34	40
High Strength (7.3N/mm ²)	32	36
Super Strength (8.7N/mm ²)	32	36

For further information, to check our most up-to-date product range or to find your nearest stocking merchant, please visit our website www.hhcelcon.co.uk or contact the following departments:

Sales

For sales enquiries or to find your local stockist please contact

Tel: 01732 886444

Fax: 01732 887013

Technical

For technical enquiries please contact

Tel: 01732 880580

Fax: 01732 887013

Email: technical.services@hhcelcon.co.uk

Head Office

H+H UK Limited

Celcon House

Ightham, Sevenoaks

Kent TN15 9HZ

Tel: 01732 886333

www.hhcelcon.co.uk

H+H UK will always endeavour to reflect our product range and technical information as accurately as possible.

We may however, need to update both from time to time during the life of this brochure. Please check with either our Sales or Technical departments to obtain the latest information prior to specification and purchase.



Build with ease

H+H