



**EH Smith**

Porotherm System Distributors



 **Porotherm®**

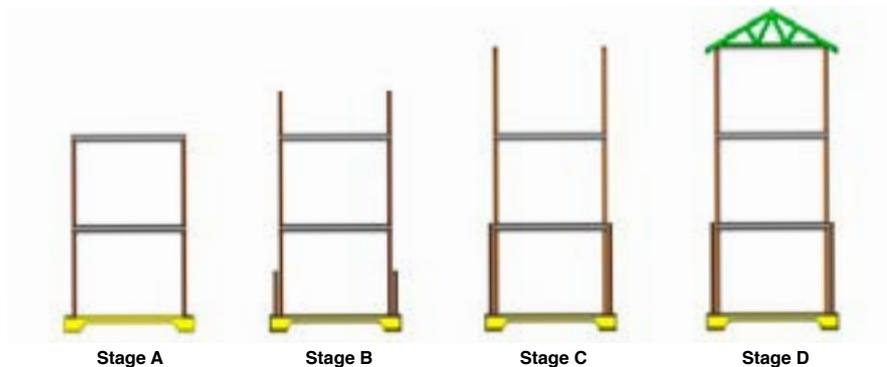
Clay block walling system

# Porotherm



## The Clay Block Walling System

With its lean laying process and rapid daily output, Porotherm brings cost and time-saving benefits throughout the build while its thermal and acoustic efficiencies bring further advantages for decades to follow – the design life for a Porotherm wall is over 150 years.



Porotherm is a masonry frame solution providing the option to build the inner skin up to two stories ahead allowing installation of floors & removing the external skin from the critical path.

### Key features/benefits

- Inner leaf of brick-faced cavity walls
- Inner and outer leaves of rendered cavity walls
- Infill panels within framed structures
- Partition walls and separating walls
- Single leaf (monolithic) internal & external walls

Industry professionals  
feedback on Porotherm

# Technical Details

<b>POROTHERM</b>	 <b>100</b>	 <b>140</b>	 <b>190</b>	 <b>365</b>
<b>DIMENSIONS W X L X H (mm)</b>	100 x 500 x 224	140 x 500 x 224	190 x 300 x 224	Technical details available on request
<b>QUANTITY/ m<sup>2</sup></b>	9	9	15	Technical details available on request
<b>QUANTITY/ PACK NO. (m<sup>2</sup>)</b>	100 (11)	72 (8)	80 (5.3)	Technical details available on request
<b>WEIGHT EACH kg</b>	11.4	13.5	10.7	Technical details available on request
<b>UNIT GROSS DENSITY kg/m<sup>3</sup></b>	950	850	850	Technical details available on request
<b>TYPICAL BLOCK DRY CONDUCTIVITY (lambda) W/mK</b>	0.29	0.26	0.26	Technical details available on request
<b>TYPICAL MEAN UNIT COMPRESSIVE STRENGTH N/mm<sup>2</sup></b>	10	10	10	Technical details available on request

# Porotherm Benefits



## Faster

- With no mortar needed in vertical joints and a minimal 1mm bed joint, the Porotherm system rises rapidly
- The Porotherm system provides the opportunity to build to storey height in a day
- Floors can be installed without the need for the external envelope being built, up to two stories ahead
- While matching masonry structures for fire-resistance, longevity and sustainability, Porotherm can be erected at the speed of timber frame or other framed solutions with the flexibility to allow for design changes that may occur during construction
- Porotherm's ZeroPlus mortar can be used from 0°C and above
- Porotherm retains the use of existing labour without the need for specialist sub-contractors. Existing supply chain can be trained and supported free of charge

## Dryer

- Porotherm uses around 95% less water than traditional block work
- A watertight shell is achieved much earlier in the construction program
- 50 litres of water utilised in traditional blockwork compared to 2.82 litres in Porotherm per 10m<sup>2</sup> of blockwork

# Porotherm Benefits



## Safer

- Porotherm blocks are lighter than concrete blocks allowing workers to maintain steady production rates without the risk of repetitive strain injuries
- Precision engineering means no sharp corners, reducing the risk of cuts
- ZeroPlus mortar is applied with a roller, reducing dermatological risk
- The bed joint mix is mixed locally to the workplace, reducing forklift movements, less plant/pedestrian contact and no need for noisy cement mixers

## More Efficient

- Thermally efficient in helping to regulate variations in temperature; air-tightness is maximised with a parge coat or wet plaster
- Acoustically efficient
- Fire resistance is outstanding – Porotherm achieves a Class A1 rating for a 100mm wall
- Breathable – assists in regulating humidity
- No moisture shrinkage – no disruption to finishes, fewer movement joints (1:20 LM)
- Typically 2% waste provision for blocks
- Mortar can be mixed in small quantities local to work place, reducing waste
- Deliveries within 48 hours – no minimum order or part load charges

## Stronger

- The compressive strengths of Porotherm's core range are typically 10 N/mm<sup>2</sup>, so one block fits the majority of requirements. As a result, there is no need to keep multiple blocks on-site, reducing the risk of wrong-block use and optimising storage space

# Porotherm & Sustainability



Porotherm is  
a masonry  
frame solution

## Sustainable

- 30% of materials from alternative, recycled or secondary sources (MARSS)
- Life expectancy of more than 150 years and blocks recyclable at end-of-life, e.g. hard core
- A+ BRE Green Guide rating in external walls

## Energy-efficient

- Less embodied energy due to lower firing temperatures
- Psi values improve the SAP rating of the building envelope and are better than default values
- Increased building fabric efficiency, so reduced need for bolt-on enhancements
- Good thermal mass
- Lucideon tested air-tightness, maximised through a parge coat or wet plaster - typically  $3\text{m}^3 / \text{m}^2 / \text{hr}$  at 50 Pa

# Porotherm Training



Learn how to lay  
Porotherm blocks

Free training sessions are held at our Porotherm Training Centres. These sessions are designed to teach participants how to build with the Porotherm system and how to achieve all of the benefits the system offers. Each participant is awarded a certificate for completing the training.

We provide comprehensive technical and installation advice and a library of key component details



# Case Study



## Retirement Living

Project: 56 Retirement Apartments

Location: Harvard Place, Stratford Upon Avon

Contractor: **McCarthy & Stone**

“ We built a large apartment block in excess of 50 units and we were in and out within 12 months; I’d find it very difficult to not want to use PoroTherm

- Tim Lightfoot, Construction Director, McCarthy & Stone

[Watch full interview ▶](#)

# Case Study



“With its efficiency, speed and cleanliness, Porotherm helps us build quicker with improved cash flow. We wouldn’t want to build with anything else.” - Ray Dias, MD, Clearview Homes

## Apartments

Project: 50 Unit Apartment Block  
Location: South Harrow, London  
Contractor: **Clearview Homes**

The system was used for the internal structure, going up one floor per eight days and making the building ready for roof installation within 10 weeks.



Once the internal structure was erected, external facing bricks were applied and internal fix began at the same time – which cut a 15-month build to around 12 months in total.

**Clearview Homes’ technical manager, Richard Drury, said speed of construction was vital for housebuilders during the recession. He said:**

“This highly-anticipated development is in the centre of town where there is high demand for new, good quality housing. We believe there will be a lot of interest from buyers and so were keen to get on with construction as soon as possible.

“Porotherm offered us the ability to complete the development three months earlier than we would normally have finished if we used another method of construction. This obviously had

implications for the sales cycle as it allowed us to release the properties onto the market much sooner than usual.”

This was the second time Clearview Homes used Porotherm for the structural internal cavity walls to increase construction speed. The developer completed a development of 12 houses at Hadley Gate in Alexandra Avenue, also in South Harrow, and shaved two months off the build programme by utilising the system.

“The lessons we learned from the first project are being brought to bear on the second. Pre-planning and organisation are vital in order to make the best use of the system and really benefit from the speed. It exceeded our expectations at Hadley Gate and was the obvious choice for the new scheme,” added Drury.



# Case Study

## Housing

Project: Private House

Location: Semples Lodge, Virginia Water

Contractor: **KMC Developments**

Overlooking the 16<sup>th</sup> Fairway at the world renowned Wentworth golf course, this exclusive development provides the perfect blend of stunning contemporary style and home comforts.

KMC Developments used the Porotherm clay block system to ensure that they achieved their demanding build programme. They have gone on to make the system their preferred method of build.



# Case Study



## Housing

Project: 9 Units

Location: Iver, Buckinghamshire

Contractor: **Oakbridge Bespoke Homes**

Porotherm was selected as the material of choice to offer a fast build programme. The nine units were constructed and the main benefit was the fact that Oakbridge were able to construct the block work ahead of the outer leaf of bricks.

The floors were installed without any of the bricks being laid. This helped them achieve a water tight shell in a much quicker time period and therefore were able to begin work internally whilst laying bricks.



# Case Study



## Education

Project: Chaddesley Corbett Endowed Primary School  
Location: Chaddesley Corbett, Worcestershire  
Developer: **A&H Construction**

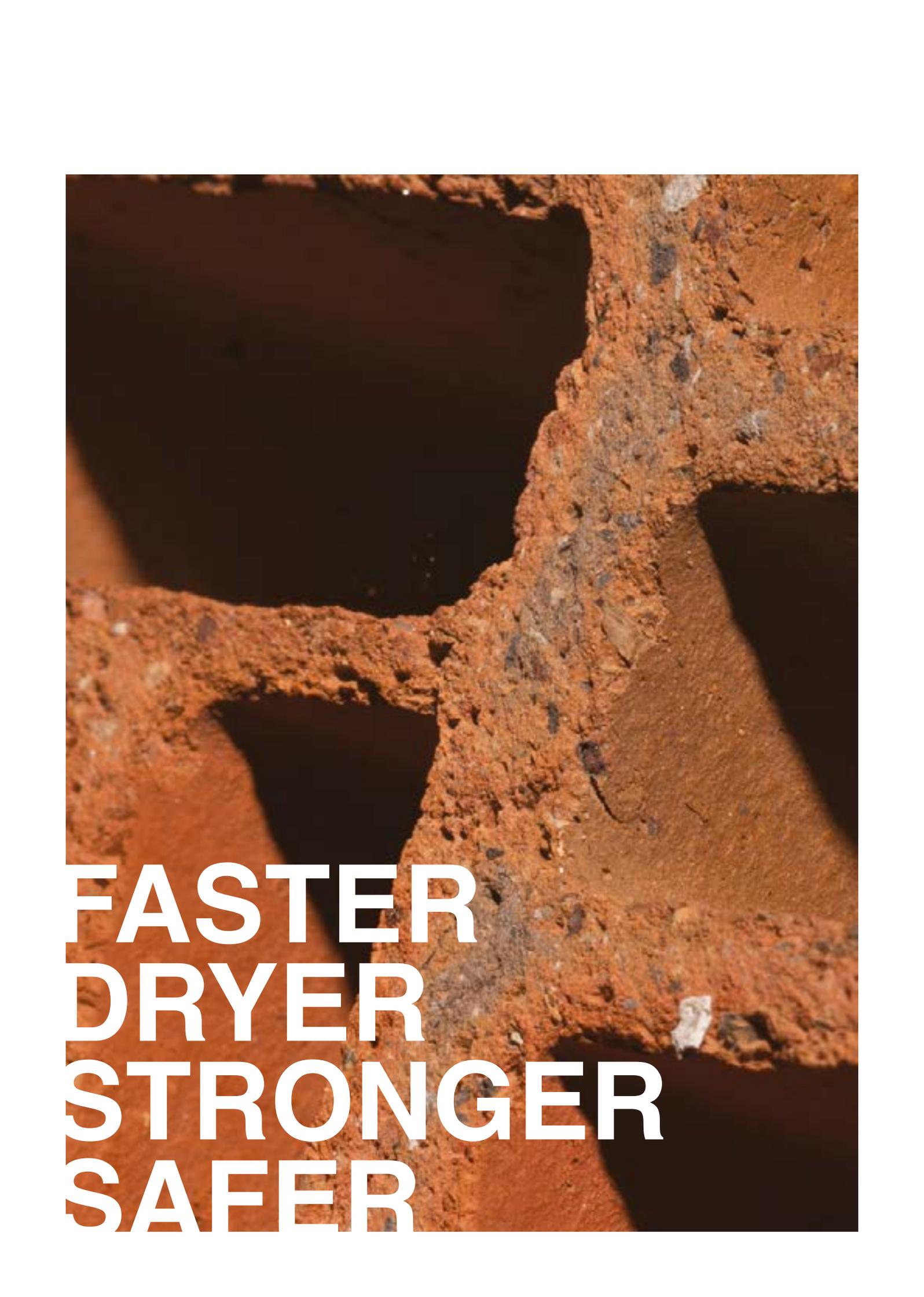
The project to build the new Chaddesley Corbett Endowed Primary School, Worcestershire, had been a long time coming.

The build, which was first approved in 2004 by Worcester County Council, finally started in December 2011. Thankfully, due to clever architectural planning and use of the Porotherm system, the project was completed by November 2012. Porotherm was used to build the school's internal cavity walls, allowing both Boughton Butler and A&H Construction greater flexibility and options with other areas of the build.

**Ian Butler, Director of Architecture, Boughton Butler LLP, commented:**

"Having tried other clay block systems we recognise that Porotherm is a first class product and the best on the UK market. Boughton Butler specify Porotherm clay blocks for more and more projects as they achieve outstanding thermal performance combined with crucial thermal mass. On-site the project benefits from the fast construction, becoming water tight quickly and facilitating follow-on trades. All this is backed up with great technical support, fast response times, operative training and punctual delivery."



A close-up photograph of reddish-brown soil, possibly a desert or arid environment. A large, irregular hole has been dug into the soil, revealing a dark, shadowed interior. The soil surface is textured and uneven, with some small rocks and debris visible. The lighting is bright, creating strong shadows and highlights on the soil's surface.

**FASTER  
DRYER  
STRONGER  
SAFER**



Authorised distributors of Porotherm,  
the clay block walling system.

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**Olton**

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**Solihull**

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0121 713 7100

*Training &  
Demo Centre*

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**For any enquiries please contact:**

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 **Porotherm®**