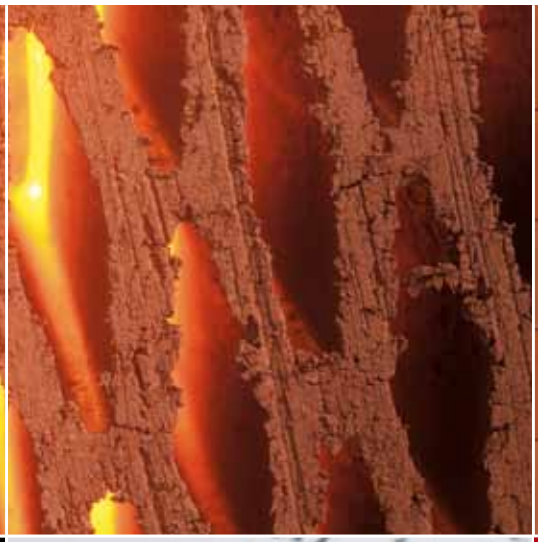
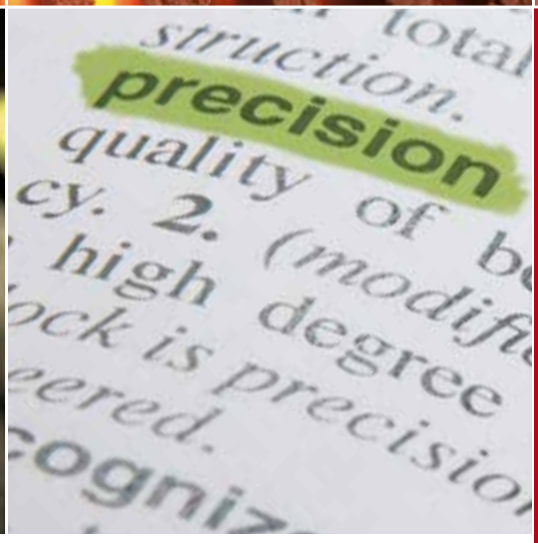



The Porotherm Block

Each Porotherm block is a precision designed and engineered vertically perforated walling unit made from prepared clay, (with up to 20% recycled materials e.g. sawdust, paper or minerals).

The blocks are extruded, dried and fired in a process that leaves innumerable connected pores giving Porotherm outstanding thermal insulation and vapour permeability properties.

After firing, the block height is precision ground to an accuracy of +/- 0.5mm giving builders the opportunity to create an accurate, clean and homogenous wall – fast!

Key Benefits

- **Proven in Europe over 30 years**
- **Satisfies UK Building Regulations**
- **Replaces concrete blocks, timber and light steel frames**
- **Outstanding thermal insulation and vapour permeability**
- **Thermal mass minimum 96kg/m^2**
- **Precision ground/planed blocks mean 1mm bed joints**
- **Environmentally friendly and sustainable**
- **Outstanding fire protection**
- **Low life cycle costs**
- **Faster construction, earlier completion**
- **Virtually dry-fix approx 95% less water than traditional masonry**
- **Fast setting joints mean virtually unrestricted build heights**
- **Little need for movement joints to restrict shrinkage and cracking. Early finishing**
- **Low weather dependency**
- **Complete system plus prefabricated wall panels**
- **Porotherm blocks comply with BS EN 771-1:2003**

Porotherm commitment.

Porotherm clay products retain their advantageous qualities for many years to ensure environmentally friendly, sustainable building and living now and in the future.

Porotherm clay products do not burn, emit smoke or harmful gases in the event of fire and a wall just 100mm thick achieves a Class A1 fire rating, giving occupants plenty of time to exit safely.

Offering outstanding sound protection both from outside noise and from between rooms, Porotherm products are also inert, rot and insect proof.

Designed for peaceful and comfortable living, the Porotherm system offers the flexibility to meet individual needs by enabling the creation of desirable homes that can be readily altered or extended at any time.

Enabling accelerated build where fast, dry construction is required along with unrivalled strength, thermal and acoustic efficiency, the Porotherm system often provides the optimum solution.

To help you achieve the full potential of the Porotherm system, Wienerberger are working with Ceram Research Limited producing a design guide that will assist designers, and will encompass building regulations and design code details.

- **Outstanding ecological balance**
- **Virtually unlimited lifetime**
- **Comfortable & healthy living climate**
- **Optimal thermal protection**
- **Maximum fire protection**
- **Peaceful living**
- **Economic efficiency**
- **Excellent lifetime value**

Cost-effective and time-efficient

Porotherm facilitates smarter, faster construction and earlier completion, so the client gets the building sooner whilst the builder sees a quicker financial return, is able to complete more projects and earn more revenue in a given period. In addition, Porotherm ensures higher efficiency, with better control of time and costs, fewer errors and a cleaner, more pleasant site.

The entire process of building with Porotherm means areas of wall can be constructed very quickly, and laying by hand is precise, simple and fast, enabling larger areas of wall to be built in a given time and dramatically outperforming traditional production rates – up to 10m²/man/hour on straight runs with Porotherm 100. See wall chart for guide to rates per hour.

Assembly methods are easy to understand, and training is available to enable masonry contractors to increase efficiency. The high precision accuracy of the blocks ensures true thin joint technology with less work. Virtually dry construction, using advanced technology adhesive utilising minimum water, means rapid drying with less shrinkage and cracking and fewer movement joints, so finishing trades can follow on without delay.

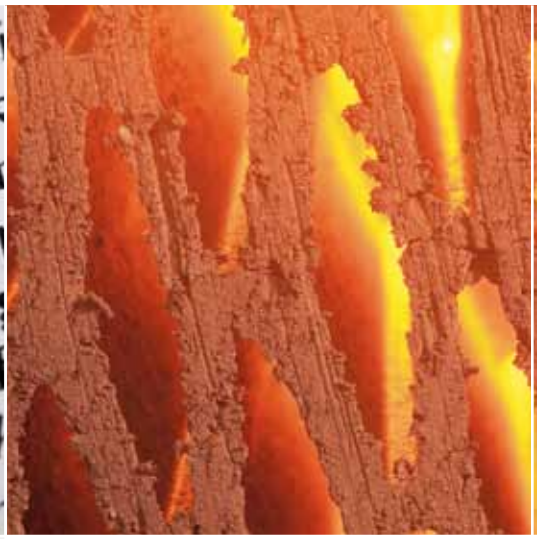
Prefabricated Wall Construction

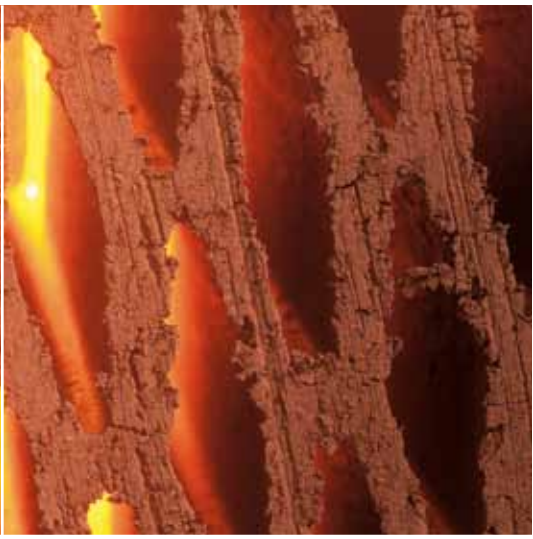
Further reducing both construction time and weather dependency, Porotherm Prefabricated Wall Panels save time and money, whilst enabling builders to achieve prime quality masonry with high compressive strength and unrestricted build heights.

Wall units are delivered to site for assembly, with fully detailed drawings to designer's calculations. Bespoke structures e.g. curved or angled walls are possible, and there is no need for standardized grids. Gables, openings and temporary supports are all designed into the system – with installation available from specialist installers. This option is used widely in Europe and is being adapted for launch in the UK in the near future.

POROTHERM

Pull out wallchart





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Less is more

LESS water, less mess, less storage space

LESS mortar = Less dermal risk

LESS weight per block = Lower risk of RSS
(Typical block weights ≤ 11kg)

Overall less time, less cost, more quality, more value

Porotherm Core Range

	DIMENSIONS W x L x H (mm)	QUANTITY/ m^2	QUANTITY/ PACK No. (m^2)	WEIGHT EACH Kg	WEIGHT PACK (inc. pallet) Kg
 POROTHERM 100	100 x 300 x 224	15	160 (10.6)	6.4	1032
 POROTHERM 140	140 x 300 x 224	15	120 (8)	7.9	955
 POROTHERM 190	190 x 300 x 224	15	80 (5.3)	10.7	870
 POROTHERM 365 (T12)	365 x 248 x 249	16	60 (3.7)	14.1	854

STANDARD

Porotherm blocks comply with EN771-1, LD Classification and carry a CE mark CE

CONSTRUCTION METHOD

First course bedded in normal mortar

Double check levels in all directions

Mix only enough Porotherm bed joint mix

Apply using roller tool, sc

UNIT GROSS DENSITY Kg/m³	TYPICAL BLOCK DRY CONDUCTIVITY (Lambda) W/mK	TYPICAL ACOUSTIC RESISTANCE Rw(db) (Wet plaster both sides)	TYPICAL AIR TIGHTNESS (Wet plaster) m³/(h.m²)	TYPICAL MEAN UNIT COMPRESSIVE STRENGTH N/mm²	TYPICAL CHARACTERISTIC MASONRY STRENGTH N/mm²	TYPICAL PRODUCTION RATE m²/man/hr
950	0.31	40	≤2.5	10	4.4	8 to 10
850	0.28	41	≤2.5	10	4.2	5 to 8
850	0.28	44	≤2.5	10	4.0	3 to 6
620	0.12	47	≤2.5	6	2.2	2 to 5

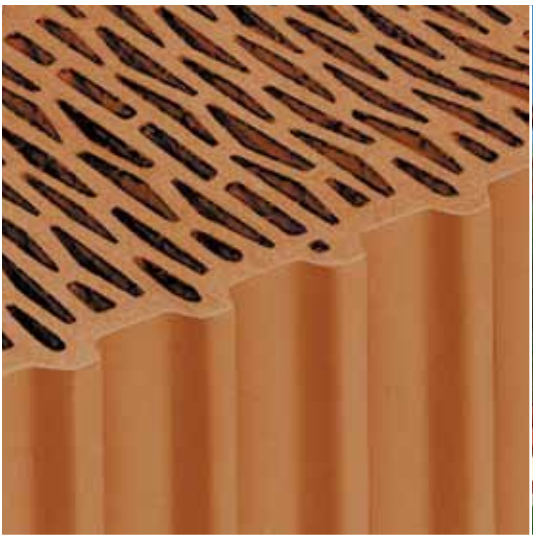
coop trowel or by dipping

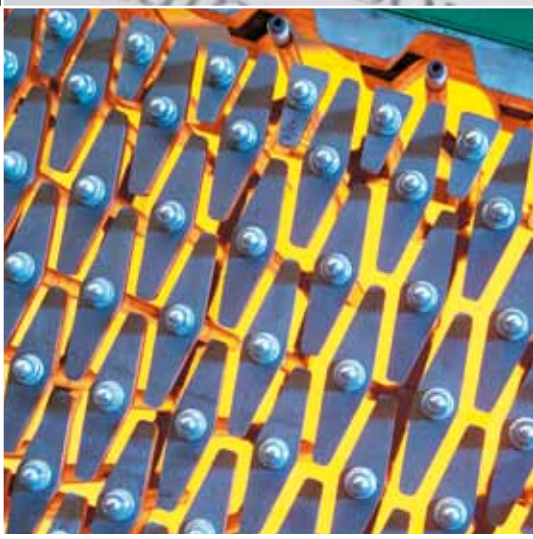
Install wall ties

Fix insulation

Cut blocks as required - alligator saw or bench cutter

Wienerberger
Building Value





Other Block Formats

(more details will be available in the forthcoming Technical Manual)

1. Reduced height starter blocks are available upon request to suit the Core Range blocks.

2. Wienerberger Ltd is also able to supply all the units currently supplied for use on superstores built using monolithic wall techniques pioneered in Germany.

3. Where the ultimate in thermal performance is required from the blocks themselves, Wienerberger can offer Porotherm units with Lambda values down to 0.08W/mK. The voids in these blocks are filled with Perlite (insulation material derived from volcanic ash). For example a T8 unit, 425mm thick, can result in a wall U value of 0.15W/m²K. These units were developed in Germany for the Passivhaus concept.

- ☑ **FAST** speed of construction up to 10m² per man per hour
- ☑ **DRY** approx 95% less water than traditional masonry
- ☑ **EFFICIENT** excellent thermal mass and good acoustic performance
- ☑ **STRONG** typical block strength 10N/mm²

- **Outstanding ecological balance**
- **Virtually unlimited lifetime**
- **Comfortable & healthy living climate**
- **Optimal thermal protection**
- **Maximum fire protection**
- **Peaceful living**
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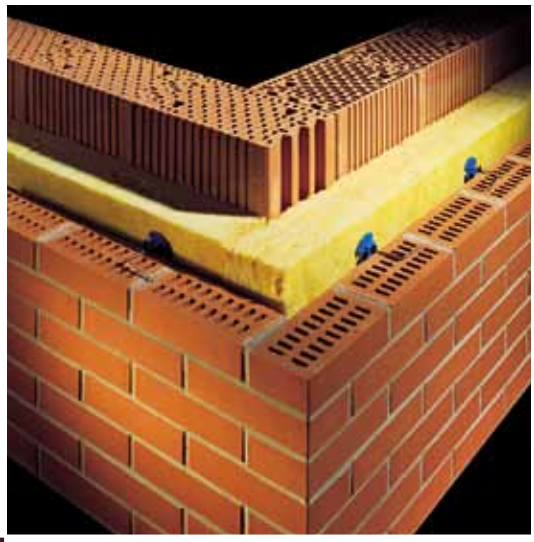
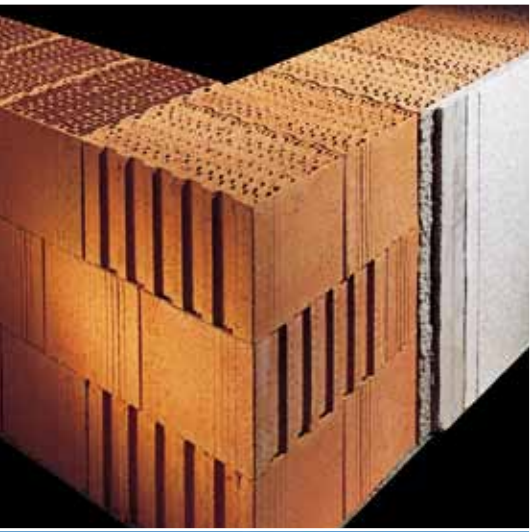
For any enquiries or to place an order, contact our Customer Service Centre on 0800 634 2266 or e-mail info@porothermuk.co.uk

POROTHERM

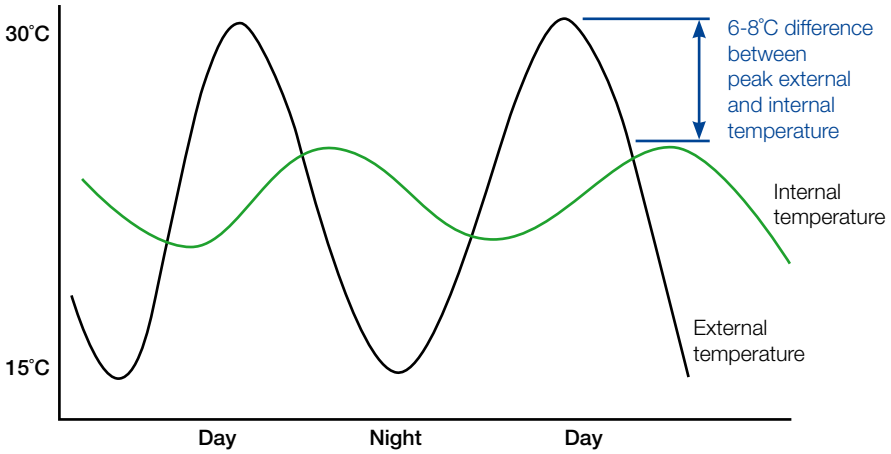
Thermal efficiency. Climate control.





Natural clay Porotherm products provide a healthy and comfortable living environment with a complete absence of pollutants and without sacrificing thermal efficiency. With a breathable structure that facilitates climate control, they create healthier living conditions by balancing and stabilising the relative humidity of the internal environment for improved comfort.

With high thermal mass and accumulation properties, Porotherm evens out temperature variations through thermal capacity effects, to protect against cold in winter and ensure a comfortable and healthy room in summer. In addition, their low moisture retention and fast drying properties optimise thermal protection, whilst gradual release of stored passive solar energy reduces heating costs. Perforation pattern, web/shell thickness and material density are all designed for optimum performance.



Typical masonry thermal mass effect
(actual performance depends upon material and thickness)