

# Powerwall

space frame systems

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# Powerwall

honeycomb on timber



## company profile

Through continual technical development we are recognised as the industry leaders in Premixed Renders, Insulation Systems, Single Skin Walling Systems, Aluminium Honeycomb and Volumetric Building Systems.

Unsurpassed in quality and performance, the construction industry has come to know us as the professional's preferred choice. Our quality accreditations speak for themselves.

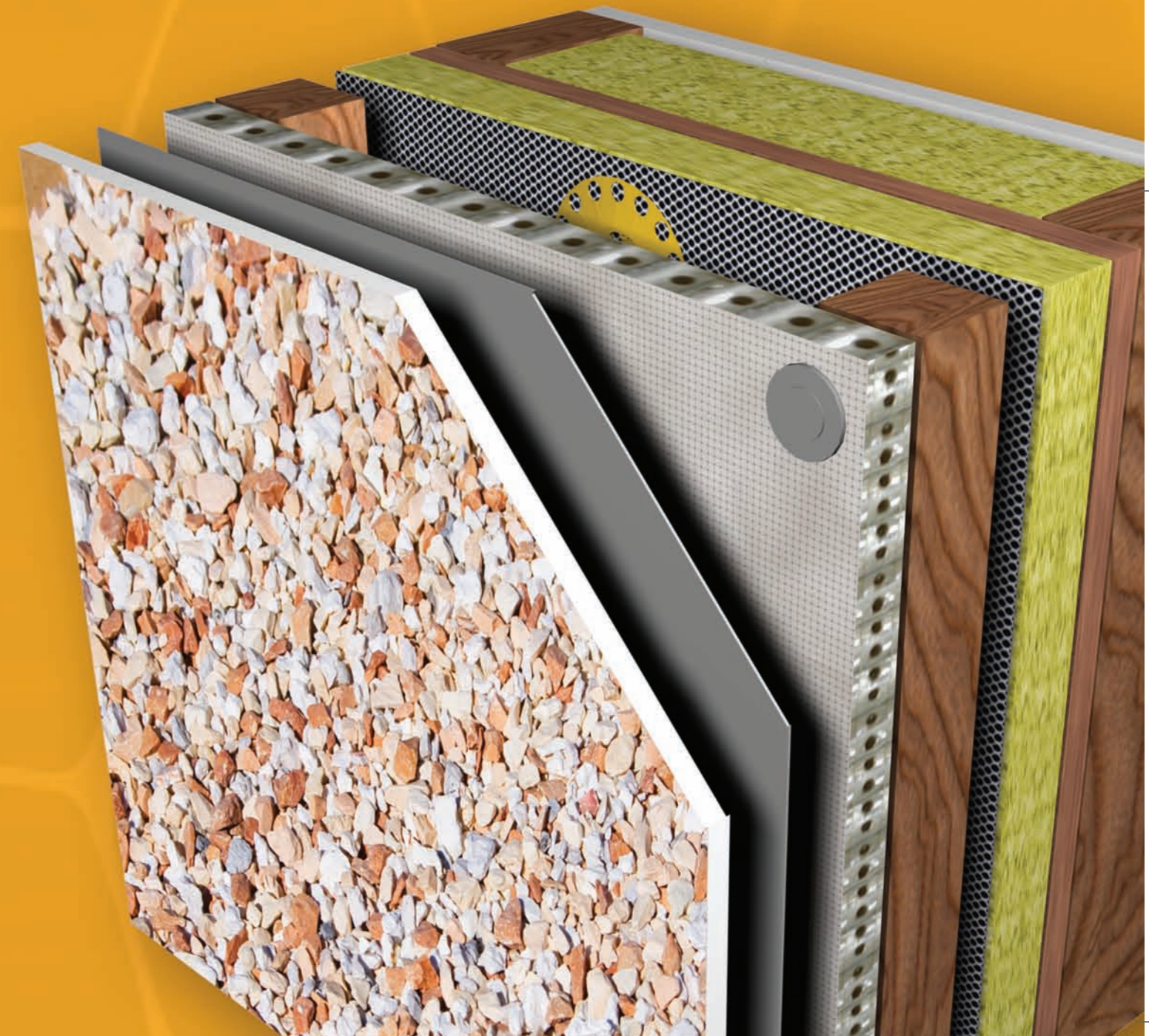
## manufacturing design & technical support

Based in the UK we are committed to expanding our production facilities to handle an ever increasing demand for new and refurbishment projects from our purpose built facilities on a 15 acre site, South East of Glasgow, and a 60,000 square foot manufacturing facility based in Artegna, Udine, Italy.

To ensure our clients' projects are delivered to the highest standards and fully meet project specifications we offer a complete package of design, technical and site monitoring solutions from our in-house team.

# Powerwall

external insulation



# introduction



In recent years improving building standards demands new buildings are thermally efficient. To achieve these standards timber kit wall sections have increased from 89 to 145mm.

The current standards are:

0.35 W/m2.K for England and Wales  
0.30 W.m2.K for Scotland

The increase in thickness of timber supports has resulted in an increase in cost.

Powerwall have a solution that not only meets today's regulations but surpasses them by up to a staggering 34%.



## our solution is simple

And works by eliminating thermal bridging through kit studs with the introduction of a high density mineral wool board and our uniquely designed drainable honeycomb panel we achieve significantly improved U-Values.

The system is secured to the exterior of the timber kit and finished with a render or brick slip finish enabling a 90mm stud section to achieve and surpass current u-value requirements with ease.

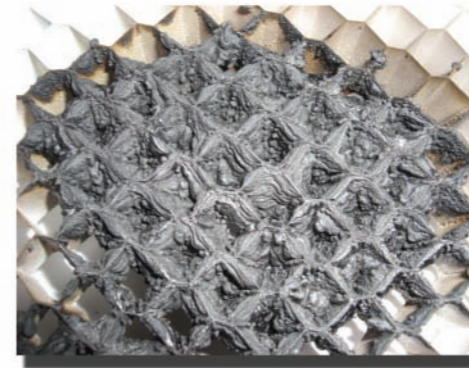
Other Benefits of using Powerwall's timber frame solution are:

- Easy Application
- Fast Build
- Minimal Weather Constraints
- No Cavity Tray or Weep Holes Required
- No Brick or Block work Required



## vented & drainable cavity barrier

Manufactured from our alloy honeycomb core and coated with a special Intumescent Fire Stopping Coating. In the event of fire the coating expands closing off the honeycomb cells and prevents the spread of fire through the structure.

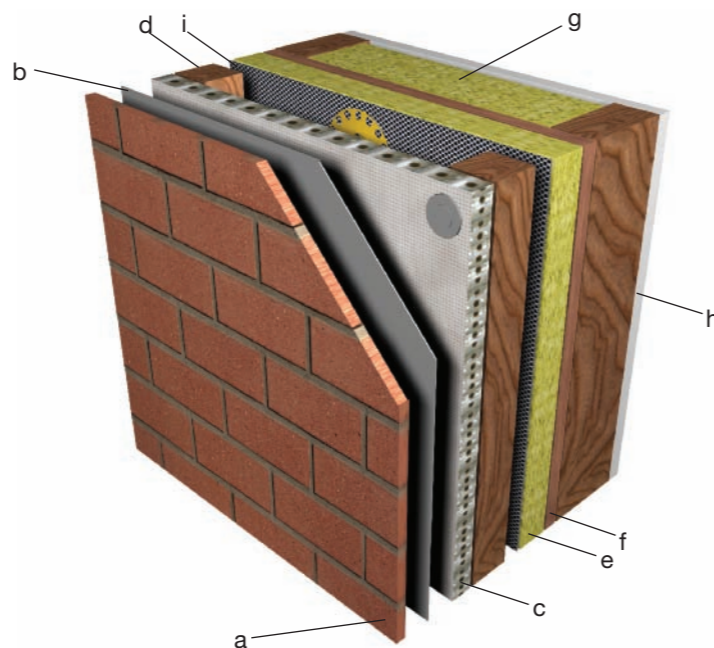
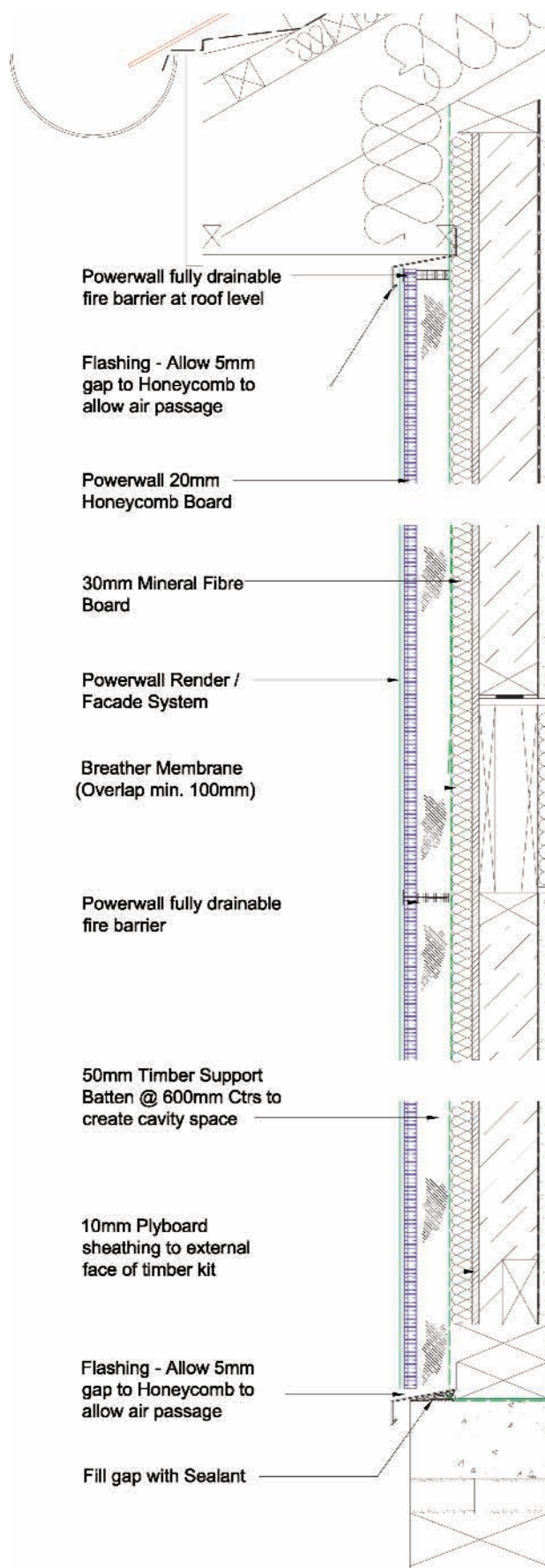


# 90mm frame solution

To address the growing issue of greener living Powerwall have developed a solution to improve the U-Value in timber kit housing using recyclable materials.

By replacing the standard brick and cavity system with our unique honeycomb panel we produce a hi tech wall compatible with a wide variety of finishes (only render and brick slip are shown).

With a 35% reduction in U-Value achieving **0.23 W/m2.K**, ensuring that your standard timber kit complies with all current building regulations.

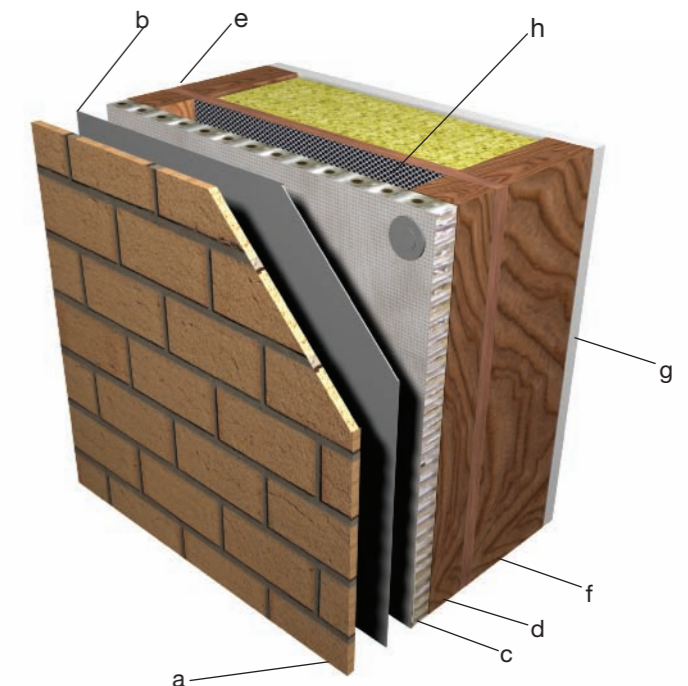
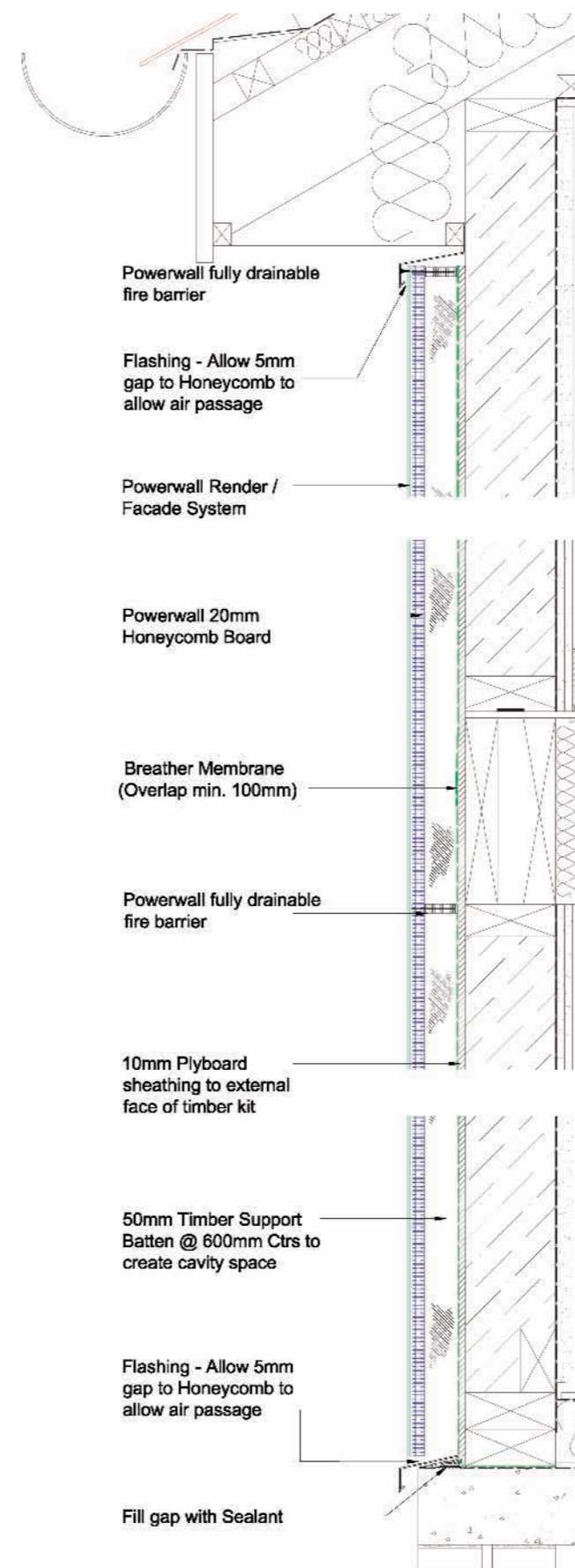


- a. Exterior Skin (Render / Brick)
- b. Panel Adhesive Coat
- c. Powerwall Honeycomb Panel (Vented & Drainable)
- d. 50mm Timber Stud
- e. 30 mm High Density Mineral Wool
- f. 10mm Plywood
- g. 90mm Stud with mineral wool in cavity
- h. Plasterboard
- i. Breather Membrane

# 145mm frame solution

As well as the 90 mm solution Powerwall also offer a solution for the 145mm timber frame.

The composition of this system offers a standard U-Value of 0.30 W/m2.K, however with the introduction of a 30mm mineral wool board as in the 90mm frame solution the U-Value can be reduced to an exceptional **0.21 W/m2.K**.



- a. Exterior Skin (Render / Brick)
- b. Panel Adhesive Coat
- c. Powerwall Honeycomb Panel
- d. 50mm Timber Stud
- e. 10mm Plywood
- f. 140mm Stud with mineral wool in cavity
- g. Plasterboard
- h. Breather Membrane