SAINT-GOBAIN

Thermistud™

by Saint-Gobain Off-Site Solutions

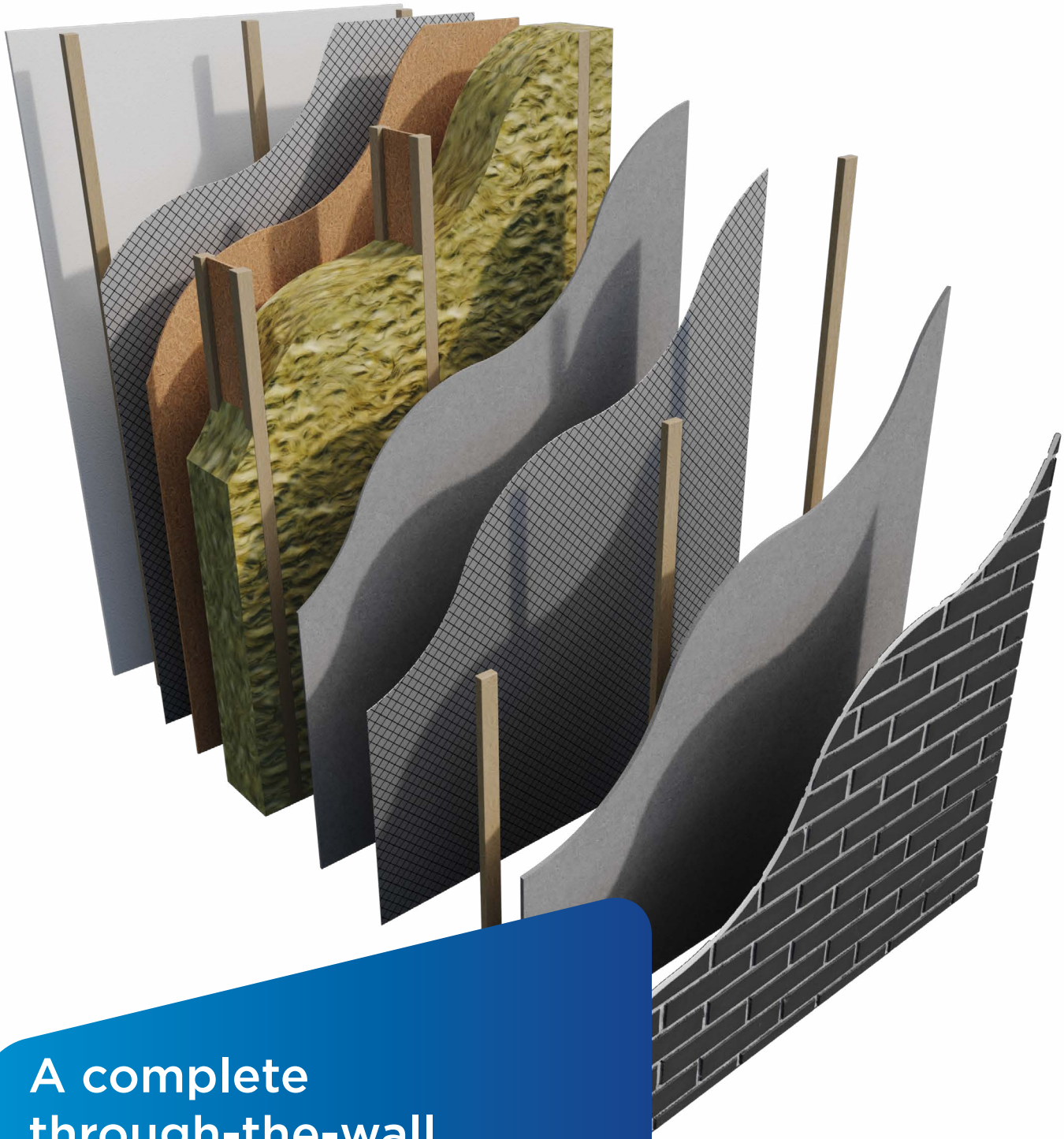
Insulated closed panel timber frame system for low rise housing

SAINT-GOBAIN OFF-SITE SOLUTIONS

An introduction to THERMISTUD™ by Saint-Gobain Off-Site Solutions

Thermistud™ is a Modern Methods of Construction (MMC) Category 2 closed timber wall panel system, designed to support the efficient construction of high performing homes.

The core of the panel is an engineered stud, used not only for structural strength, but also the reduced thermal bridging through the panel. The Thermistud system incorporates factory installed Isover mineral wool insulation, which is hand fitted to reduce voids and slumping. The panels are supplied to site with vapour control membranes, service zones and externally fitted battens.



A complete through-the-wall solution

The Thermistud system has been designed to support lightweight external decorative finishes systems such as weberwall brick (more on this on page 9), render or timber cladding, as well as traditional brick slips, giving flexibility for street scenes. When combined with Saint-Gobain structural roofing and flooring solutions, a complete structural system can be delivered from a single supplier, with all manufacturing in the UK.

What is Pre-Manufactured Value (PMV)?

The benefit to you and your customers

PMV takes into consideration the elements of a build that use any of the seven categories of MMC. These methods are categorised as taking place take place off-site or near-site. PMV is a methodology for assessing the level of off-site construction used in a build. It is being used by Homes England as part of its Affordable Homes Programme, and a range of other industry stakeholders, to measure progress towards modernising homebuilding through increased manufacturing and technology applications.

The aim of improving PMV is to support industry outcomes such as decarbonisation, speed, productivity, safety, predictability, workforce re-skilling and level of community disruption. To find our more please visit: **https://www.cast-consultancy.com/pmv/**

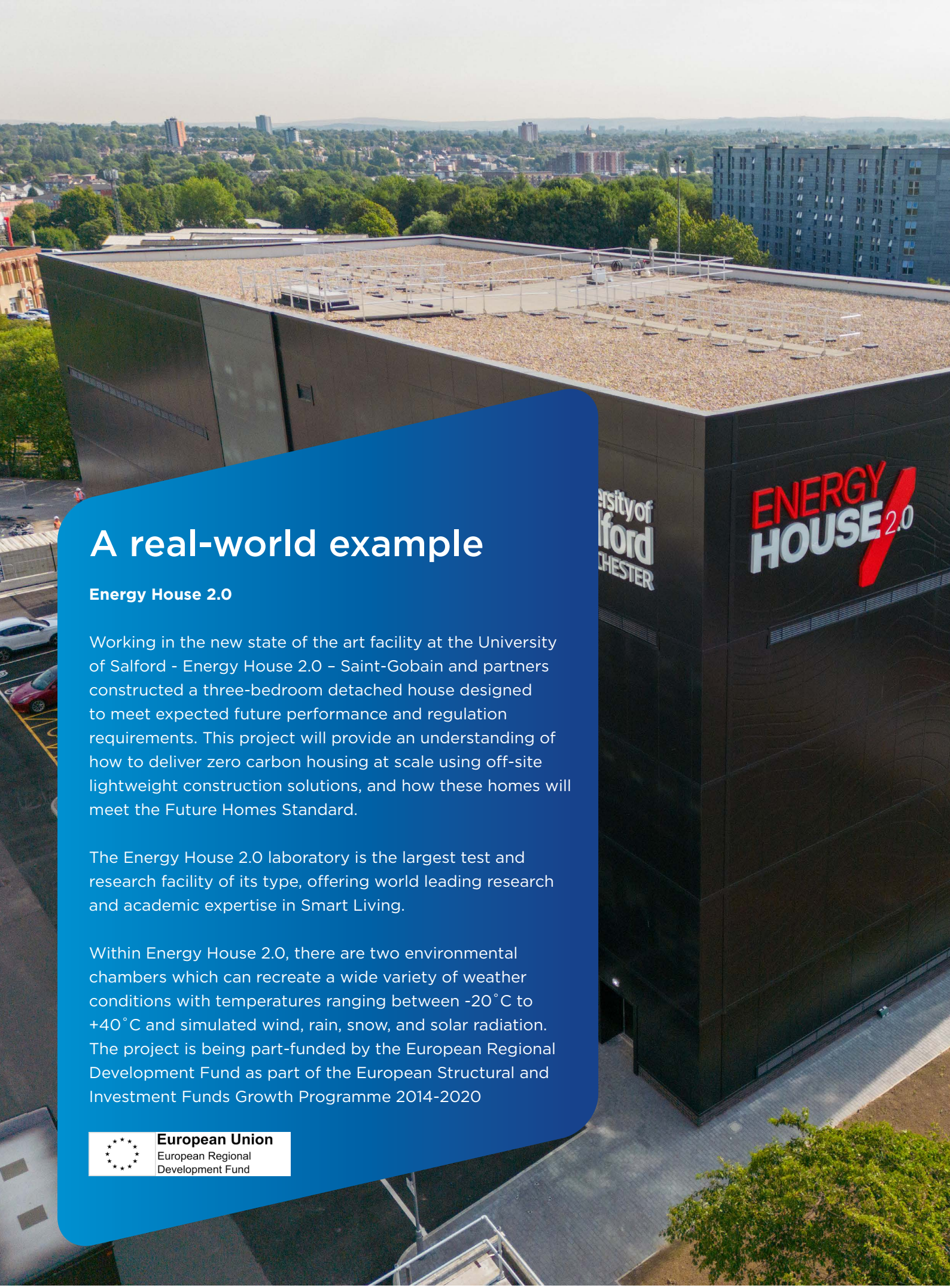
What are the MMC categories?

Research by UK Government's Modern Methods of Construction (MMC) cross-industry working group has defined the following categories for MMC.

1. Pre-manufacturing (3D primary structural systems)
2. Pre-manufacturing (2D primary structural systems)
3. Pre-manufacturing components (non-systemised primary structure)
4. Additive manufacturing (structural and non-structural)
5. Pre-manufacturing (Non structural assemblies and sub-assemblies)
6. Traditional building product led site labour reduction / productivity improvements
7. Site process led labour reduction / productivity / assurance improvements

Thermistud directly delivers within category 2. When combined with other Saint-Gobain systems, PMV values of 62% can be achieved.

Cast



A real-world example

Energy House 2.0

Working in the new state of the art facility at the University of Salford - Energy House 2.0 – Saint-Gobain and partners constructed a three-bedroom detached house designed to meet expected future performance and regulation requirements. This project will provide an understanding of how to deliver zero carbon housing at scale using off-site lightweight construction solutions, and how these homes will meet the Future Homes Standard.

The Energy House 2.0 laboratory is the largest test and research facility of its type, offering world leading research and academic expertise in Smart Living.

Within Energy House 2.0, there are two environmental chambers which can recreate a wide variety of weather conditions with temperatures ranging between -20˚C to +40˚C and simulated wind, rain, snow, and solar radiation. The project is being part-funded by the European Regional Development Fund as part of the European Structural and Investment Funds Growth Programme 2014-2020

European Union
European Regional Development Fund

Sustainable housing solutions, delivered at scale

The Thermistud system was developed as part of the Saint-Gobain and Barratt Developments partnership at eHome2. eHome2 is designed to understand how sustainable housing can be delivered at scale, using construction solutions manufactured off-site.

The use of the Thermistud system, combined with floor cassettes, a specially designed roof structure and Weber external decorative finish, allowed for a fast, safe build.

Following the launch in January 2023, there will be continual monitoring of the home's 'as-built' performance to help understand how the home performs and inform future innovation. eHome2 will undergo a rigorous testing programme looking at energy efficiency, thermal performance and how homes can meet and exceed the Future Homes Standard.

Renders and Finishes

weberend MT multi-coat render system

The multi-coat render system is designed for application to an appropriately framed and boarded panel substrate such as Thermistud, with a choice of textured finishes in a wide range of colours. It offers a high degree of weather protection, crack resistance and fire performance. The render system can be finished with webersil TF or weberplast TF textured finishes or weberwall brick a lightweight brick effect system.

webersil TF silicone enhanced render finish

A textured silicone render finish is available in over 100 colours and offers a highly weather-resistant decorative coating. The 1.5mm aggregate content provides a modern, even-textured finish.

- **Highly water repellent, providing optimum facade protection**
- **Highly vapour permeable**
- **Weather-resistant and UV stable**
- **Hand or spray applied**
- **Forms part of a number of BBA approved systems**

weberwall brick – mineral brick effect finish

A lightweight, authentic brick-effect finish which can be installed in a fraction of the time compared to traditional brick slips. Formulated from 95% minerals bound in cross-linked polymers laid onto a mesh sheet, weberwall brick is a fully flexible, colourfast system that allows existing structures and new buildings to breathe.

- **Lightweight – 1 sheet of 20 bricks equal to the weight of 1 house brick**
- **Range of authentic colours and textures available**
- **Forms part of a number of BBA approved systems**

weberwall brick is proven to be quicker to apply. By laying 20 bricks at a time compared to a traditional brick slip system a wall can be completed more than three times faster.

One **weberwall brick** sheet weighs the equivalent of one traditional household brick, meaning less storage is required on-site, less manual handling, transport costs are lower and there are fewer emissions from lorries.

weberwall brick is thinner than traditional brick, it frees up space within the cavity so that more insulation can be added, keeping the house warmer than if traditional brick is used.

For more on weberwall finishes, please visit:
https://www.uk.weber/colour-charts/weberwall-brick

Why Choose Saint-Gobain Off-Site Solutions?

By implementing the right mix of off-site and on-site technologies, we believe we can build better buildings.

PRODUCED IN A CONTROLLED ENVIRONMENT

TRUSTED AND PROFESSIONAL SUPPLY CHAIN

CONSISTENT HIGH QUALITY

INCREASED BUILD SPEED

SUSTAINABLY SOURCED

MANUFACTURED TO YOUR EXACT SPECIFICATION

IMPROVED HEALTH AND SAFETY

COST SAVINGS

Part of a strong global group

For over 350 years, Saint-Gobain has been at the forefront of materials innovation.
We're now harnessing the collective expertise of our manufacturing brands to help you embrace the opportunities available through off-site construction.

By offering a range of solutions, systems and components, Saint-Gobain Off-Site Solutions can help you to improve the speed of construction on-site, and deliver consistent quality and sustainability performance, with the reassurance and transparency that comes from working with one of the most trusted brands in construction.

We make life better on-site, by taking things off-site.

Connect with us

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If you would like to tour the Energy House 2.0 facility, please email:
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