



Certificate No: EW203



This certificate is valid for Building Regulations & associated technical guidance in force on the date of registration and for the regulations in the countries indicated

Mantle Building System - wall and roof system

Description of Product

A wall and roof system for domestic use, up to 3.5 storeys, including detached, semi-detached & terraced units. The Mantle Building System is a hybrid solution between Stressed Skin Panels and regular Structural Insulated Panels (SIP) systems.

Mantle

Building System



Key Factors Assessed

- Mechanical Resistance & Stability
- Safety in case of Fire
- Health, Hygiene and Environmental
- Safety in Use
- Protection against noise
- Energy Economy and heat retention
- Durability serviceability and identification

Validity

This certificate was first issued on 9th July 2012 and is valid until 9th July 2021

Issue Dated 2nd May 2018

Scope of Registration

This certificate is for a prefabricated wall and roof system for domestic use up to 3.5 storeys, including detached, semi-detached and terraced units using 'super-insulated' composite materials to provide a structural solution. Subject to appropriate structural engineer sign-off, the system can also be used for other building types presently outside of the scope of this Registered Detail.

The Mantle Building System comprises wall and roof components. Each standard panel has a 200mm thick centre core and 10mm thick outer skins of cement bonded particleboard. Wall panels used as party walls have additional detailing to improve fire resistance and acoustics.

Wall cladding options available; Single skin construction using approved renders and cladding systems including whole brick skins with cavity.

Roof cladding options available: Bespoke structural design for roof system to be provided in each instance. All roof coverings are applicable.

Floor options available:

Ground floor - concrete slab, ground floor - beam & block, ground floor, 1st floor and 2nd floor - traditional solid timber joists, I-joists or open metal web joists with wood based panels / timber boarding. Ceilings to meet the requirements of Approved Document Part B where appropriate.

The proposed system is capable of achieving the standard for party walls set out in Building Regulations: Approved Document E 2010, providing that flanking at wall, floor and ceiling junctions are accounted for.

Final choice of external waterproof envelope will be subject to separate verification and approval should be sought from Building Control and Warranty provider prior to any commencement on site.

For LABC Warranty purposes

At this time the use of the Mantle Building System has not been assessed as fully meeting the requirements of the LABC Warranty Technical Manual. However, LABC Warranty cover has been agreed on a project by project basis. Enquiries to technical.services@labcwarranty.co.uk

Conditions of Certificate

Installation should only be undertaken by competent persons in compliance with the Mantle Build Manual. In order to ensure build compliance, on-site quality control inspections will also be undertaken by engineers, appropriately approved and certified by Mantle Panel Ltd

The choice of external finish to be determined prior to commencement on site to ensure building regulation compliance will be achieved and any additional Warranty provisions satisfied.

Appropriate thermal analysis will be provided in each instance to demonstrate continued compliance with Approved Document L 2013.

The foundation design does not form part of this assessment.

This Registered Detail has only assessed the Mantle Building System against new domestic use, up to 3.5 storeys, including detached, semi-detached & terraced units. Appropriate fire barriers and compartment floor design would need further verification outside of the scope of this registration where design includes flats and/or separating floors.

Sound testing required to demonstrate compliance with Approved Document E1 and E2.



LABC consider that, the Mantle Building System will meet the functional requirements of the Building Regulations (listed below) if the criteria detailed in this certificate are met;

The Building Regulations 2010 (as amended) England & Wales

Regulation 7	Materials and workmanship
Note:	The product is acceptable.
AD A	Structure
Note:	Relates to A1 and A3 only
AD B	Volume 1: Fire Safety
Note:	Relates to B2 and B3
AD C	Site Preparation and Resistance to Ground Moisture
Note:	The product satisfies the requirement
AD E	Resistance to the Passage of Sound
Note:	Relates to E1 and E2 only.
AD F	Ventilation
Note:	The product satisfies this requirement for dwellings.
AD H	Drainage and waste disposal
Note:	In so much as it relates to specific site conditions.
AD J	Combustion Appliances and Storage Systems
Note:	The product satisfies the requirement in relation to fire only.
AD K	Protection from Falling, Collision and Impact
Note:	The product satisfies the requirement for K1 stairs in dwellings.
AD M	Access and Use of Buildings
Note:	The product satisfies the requirement for M4 in dwellings.
AD P	Electrical Safety
Note:	The product satisfies the requirement for P1 design.



The Building Regulations 2010 (as amended) England

AD B	Volume 1 & Volume 2: Fire Safety
Note:	Relates to B2 and B3
AD L1A	Conservation of fuel and power
Note:	The thermal insulation performance of this system should be considered in the context of the contribution made to the overall performance of the thermal element.



The Building Regulations 2010 (as amended) Wales

AD B	Volume 2: Fire Safety
Note:	Relates to B2 and B3
AD L1A	Conservation of fuel and power
Note:	The thermal insulation performance of this system should be considered in the context of the contribution made to the overall performance of the thermal element.



The Building (Scotland) Regulations 2004 (as amended)

If you would like to discuss a specific use of the product in Scotland it will require an additional assessment under the Scottish Building Regulations and accordingly you should contact the LABSS STAS Administrator at www.labss.org

Non-Regulatory Information



LABC Warranty

The use of the Mantle Building System has not been assessed to meet the requirements of the LABC Warranty Technical Manual. If you would like to discuss a specific use please make an enquiry to technical.services@labcwarranty.co.uk. See additional comments within Scope section.

Supporting Documentation

Mantle panel drawings MTL-0001 to MTL-0035 (issued under 1st April 2004 LANTAC approval) Amended drawings MTL 22/3; MTL23; MTL23/1 and MTL25/1 (reissued 04/08/15)

Trada structural assessment – Ref: TE//F03161-final issue 17th May 2004

Apollo Chemicals Limited Polyurethane Technical Data Sheet

Mantle Building Systems Build Manual

Mantle Building Systems overview W design

SRL letter 4th August 2015 RE: Sound Insulation Assessment

Chilton Fire Performance Appraisal Report No. Chilt/AOB241

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