Sto Therm Masonry Insulation System

Product Technical Statement: 104734

miproducts

Insulation systems for concrete masonry, in-situ or pre-cast concrete walls.
View miproducts listing

Level of assurance needed to demonstrate NZ Building Code Compliance

M MEDIUM

Supporting documentation should include technical information by manufacturer and either an independent assessment or reference to an industry-based scheme

Sto confirms that this minimum level of assurance has been met or exceeded by the following:
BRANZ Appraisal
488 (2006)

masterspec partner

Technical Statement

Scope of use

The StoTherm Masonry Insulation System has been appraised as an exterior insulating and finishing system for buildings within the following scope:

- with substrates of concrete masonry, in-situ or pre-cast concrete, up to 3 storeys, with a maximum height from ground to eaves of 10 m; and,
- with floor plan area limited only by seismic and structural control joints; and,
- with supporting structures designed and constructed in accordance with the NZBC; and,
- situated in NZS 3604 Wind Zones up to, and including Extra High.

The StoTherm Masonry Insulation System has also been appraised for bond/fixing, durability and weathertightness of the exterior insulating and finishing system for concrete masonry, in-situ or pre-cast concrete buildings subject to specific design up to a differential design ultimate limit state (ULS) wind pressure of 2.5 kPa.

The StoTherm Masonry Insulation System must only be applied on vertical surfaces except for sills, concrete reinforced parapets and concrete reinforced balustrades which must have a minimum 10° slope and be waterproofed in accordance with the requirements of the Technical Literature and building designer.

The StoTherm Masonry Insulation System is appraised for use with aluminium window and door joinery that is installed with vertical jambs and horizontal heads and sills.

New Zealand Building Code (NZBC)

The product will, if employed in accordance with the supplier's installation and maintenance requirements, assist with meeting the following provisions of the building code:

- **Clause B1 Structure:** Performance B1.3.1, B1.3.2, B1.3.3, B1.3.3(a), B1.3.3(h), B1.3.3(j), B1.3.3(q), B1.3.4
- **Clause B2 Durability:** Performance B2.3.1(b), B2.3.1(c)
- **Clause C3 Fire affecting areas beyond the fire source:** Performance C3.7
- **Clause E2 External moisture:** Performance E2.3.2
- **Clause F2 Hazardous building materials:** Performance F2.3.1
- **Clause H1 Energy efficiency :** Performance H1.3.1(a), H1.3.2E

Notes

The StoTherm Masonry Insulation System meets the requirements of Performance B2.3.1(b) 15 years for the substrate and render system, and the requirements of Performance B2.3.1(c) 5 years for the paint finish.

The StoTherm Masonry Insulation System will not present a health hazard to people.

Supporting Evidence

The product has and can make available the following additional evidence to support the above statements:

BRANZ Appraisal
488 (2006)

Product Criteria

Design requirements

The StoTherm Masonry Insulation System is expected to have a serviceable life of at least 30 years provided the system is maintained in accordance with the Sto Specification, Warranty and BRANZ

Company Contact Details

sto

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Appraisal, and the StoTherm panels, anchors and renders are continuously protected by a weathertight coating and remain dry in service.

Concrete masonry must be designed and constructed in accordance with NZS 4210 and either NZS 4229 or NZS 4230. The concrete masonry walls must be fully grouted.

The StoTherm render and finishing system has a peak heat release rate less than 100 kW/m2 and a total heat released less than 25 MJ/m2. The system is suitable for use on buildings with a SH Risk Group classification, at any distance to the relevant boundary. Refer to NZBC Acceptable Solutions C/AS2 – C/AS6, Paragraph 5.8.1 for the specific exterior surface finishes requirements for other building Risk Groups.

For a full breakdown of the system components, Click Here.

Installation requirements

Installation and finishing of components and accessories supplied by Stoanz Limited and the Sto registered contractor must be completed by trained applicators, approved by Stoanz Limited.

Installation of the accessories supplied by the building contractor must be carried out in accordance with the StoTherm Masonry Insulation System Technical Literature and the BRANZ Appraisal by, or under the supervision of a Licensed Building Practitioner (LBP) with the relevant Licence Class.

Maintenance requirements

Regular maintenance is essential to ensure the performance requirements of the NZBC are continually met and to ensure the maximum serviceability of the system. Carry out an annual inspection and record this on the Sto Construction Systems Maintenance schedule.

Regular cleaning (at least annually) of the paint coating is required to remove grime, dirt and organic growth and to maximise the life and appearance of the coating. Grime may be removed by brushing with a soft brush, warm water and detergent. The paint system must be recoated at approximately 8-10 yearly intervals in accordance with Stoanz Limited instructions. Clear sealer systems require recoating at 5-7 yearly intervals.

Warrantees

With an increasing emphasis on the implementation of servicing exterior building elements, Sto has launched the StoArmat 20 Year Warranty and StoService Assurance documentation. This system, administered by Sto and carried out by Sto Contractors, ensures all specified StoArmat Rendered Systems are registered, serviced and certified every two and a half years to provide assurance that all building elements pertaining to the rendered facade are performing.

Refer to the StoArmat Warranty Document by clicking here.

Company Product Information

Environmental

Protecting the natural basis for life and improving quality of life are important aims in social policy. Sto actively pursues these aims, always acting in accordance with the company's guiding principle: "Building with conscience."

In order to define and implement its ecological targets, Sto has developed a system of environmental management conforming to international standards. This relates to the entire process chain – from the procurement of the raw product, to production, packaging and logistics.

Quality Assurance

ISO 9001 (Quality Management)

Videos

StoArmat Plaster Ball Drop Test

Date last validated: **07 July 2020**

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