

Cavity based stucco wall cladding system over stainless steel lath.

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#### Level of assurance needed to demonstrate NZ Building Code Compliance

Supporting documentation should include technical information by manufacturer and either a BRANZ or independent Appraisal or CodeMark





Sto confirms that this minimum level of assurance has been met or exceeded by the following:

**BRANZ Appraisal** 488 (2006)



#### **Technical Statement**

#### **Product Description**

The StoStucco Render System is a proprietary stucco wall cladding system, which is solid, durable and offers greater flexibility, higher impact resistance and faster installation than conventional stucco.

The system incorporates a lath made from a stainless steel welded wire mesh, which is fixed over timber battens to form the cavity. The StoStucco render system consists of a nominal 22 mm thick stucco render incorporating LevelLite basecoat render, StoArmat Classic meshed reinforcement render, selected Stolit K, Stolit MP or Stolit Milano coloured finishing render and selected StoColor facade paint or clear sealer.

Stolit K finishing renders are available in a flat 1.0, 1.5, 2.0 or 3.0 mm aggregate. Stolit MP, MP Natural and Milano are fine pre-coloured sponge finishes. A pebble dash finish is also available.

The StoColor System comprises 800+ colours for use in architecture — or can be matched to any colour using the Sto Spectrometer to meet any design preference.

Stoanz Limited recommends that the selected finish colour must have a minimum Light Reflectance Value (LRV) of 35%. Where a colour with an LRV of less than 35% but above 25% is selected, two (2) coats of StoColor X-black heat reflective facade paint are required.

Combining a lightweight, engineered, mineral basecoat with technologically advanced fibre reinforcement plaster and elastomeric finishes, StoStucco creates a stucco cladding that is superior to the traditional, applicator hand mixed product.

The system meets all of the demands and requirements of New Zealand's house owners, and gives Architects, designers and specifiers freedom for an unlimited range of design concepts.

#### Scope of use

The StoStucco Render System has been appraised by BRANZ as an external wall cladding system for buildings within the following scope:

- the scope limitations of NZBC Acceptable Solution E2/AS1, Paragraph 1.1; and,
- · constructed with timber framing complying with the NZBC; and,
- with a risk score of 0-20, calculated in accordance with NZBC Acceptable Solution E2/AS1, Table 2;
- · situated in NZS 3604 Wind Zones up to, and including Extra High

StoStucco has also been appraised for weathertightness and structural wind loading when used as an exterior wall cladding for buildings within the following scope:

- the scope limitations of NZBC Acceptable Solution E2/AS1, Paragraph 1.1 with regards to building height and floor plan area; and,
- · constructed with timber framing subject to specific engineering design; and,
- · situated in specific design wind pressures up to a maximum design differential ultimate limit state (ULS)

StoStucco must only be installed on vertical surfaces (except for tops of parapets, sills and

The 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), B2.3.2





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#### Company Contact Details Sto New Zealand Company: Physical 72 Abel Smith Street Te Aro Address: Wellington Postal Address: 72 Abel Smith Street Te Aro Wellington Telephone: 64 04 8017794 64 04 3849828 info@sto.co.nz Website: www.sto.co.nz

## Sto Stucco Render System

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- 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

#### Notes

The StoStucco Render System meets the requirements of Performance B2.3.1(b) 15 years for the render and cavity system, and the requirements of Performance B2.3.1(c) 5 years for the paint finish.

The StoStucco Render 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**

StoStucco 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 Appraisal, and the lath, fixings and renders are continuously protected by a weathertight coating and remain dry in service.

Studs must be at maximum 600 mm centres for buildings situated in NZS 3604 Wind Zones up to and including Extra High, and specifically designed buildings in wind pressures up to and including design differential 2.5 kPa ULS.

The StoStucco render and finishing system has a peak heat release rate of less than 100 kW/m2 and a total heat released of 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 finish requirements for other building Risk Groups.

For a 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 StoStucco 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**



# Sto Stucco Render System Product Technical Statement: 104728



#### **Videos**

StoArmat Plaster Ball Drop Test



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