

**Product name:**

# Seismolock Render

**Product Line:**

Plaster / Render

**Product description and its intended use:**

Seismolock is a thin fibre-reinforced plaster designed to structurally upgrade existing URM (unreinforced masonry) buildings to resist earthquake loads. The system is easily applied and provides a simple and economical alternative to traditional strengthening methods, reducing construction time and site disruption. The use of this product needs to be specified by an engineer when using it to achieve earthquake strengthening.

Flushing concrete block, brick and concrete. Seismolock Render provides earthquake-strengthening properties.

Seismolock Render will adhere well to clean, dry concrete and brick and dry and cure well in a thin coat. Seismolock Render will provide good durability for an indefinite period, depending on the life of the substrate.

When used within a specified Resene Construction System, this product has performance ratings for specific applications.

**Product identifier:**

The product name with the production date is printed on the finished bag.

**Place of Manufacture:**

Aotearoa New Zealand

**Legal and Trading Information:**

Legal and trading name of the manufacturer(s):	Rockcote Resene Limited T/A Resene Construction Systems
Address of the Manufacturer:	32-50 Vogel Street, Naenae, Lower Hutt
Website Address:	<a href="https://reseneconstruction.co.nz">https://reseneconstruction.co.nz</a>
Email Address:	<a href="mailto:help@reseneconstruction.co.nz">help@reseneconstruction.co.nz</a>
Phone Number:	<a href="tel:0800507040">0800 507040</a>
NZBN:	9429034745786

This product is not subject to a warning or ban under s26 of the Building Act.

**Relevant Building Code clauses:**

- Clause B1 - Structure - Performance B1.3.1, B1.3.2 and B1.3.4
- Clause B2 - Durability - Performance B2.3.1 (b) 15 years, B2.3.1 (c) 5 years and B2.3.2
- Clause E2 - External Moisture - Performance E2.3.2
- Clause F2 - Hazardous Building Materials - Performance F2.3.1

**How the building product is expected to contribute to compliance:**

This product is used and has been tested as part of a wider system.

B1 - This product has a low probability of rupturing, becoming unstable, losing equilibrium, or collapsing during construction or alteration and throughout its life. This product has a low probability of causing loss of amenity through undue deformation, vibratory response, degradation, or other physical characteristics throughout its life and during construction or alteration when the building is in use. This product has made allowance for the requirements of this functional requirement.

B2 - When installed in accordance with the system specifications and drawings, it will meet this performance requirement. Based on material properties and history of use, this product has been assessed to have a durability of at least 15 years when installed as part of a system. This product must be installed in accordance with the relevant specifications outlined in the design section of this document.

E2 - When installed in accordance with the system specifications and drawings, it will meet this performance requirement.

F2 - This product is safe when handled in accordance with its Technical and Safety DataSheet. Dust resulting from sanding and mixing compounds may be a respiratory irritant, and the use of suitable respiratory protection is required. This product meets the requirements set out in F2 and will not present a health hazard to people once installed.

**Limitations on the use of the building product:**

Do not apply less than 3mm per coat or more than 8mm in one coat. Requires over-coating with finishing textures for external walls only. Seismolock is designed to be applied to DRY substrates. Do not wet down masonry or brick surfaces before the application of Seismolock, and do not apply Seismolock to surfaces that are wet from rain or overnight dew. Brick, concrete block and masonry surfaces must be free of oil, paint, dirt and lichen growth. Requires over-coating with a protective coating.

Apply when the temperature is between 5°C and 30°C

This product should not be applied over wood, PVC or metal-based products.

It should be noted that Resene Construction Systems products do not satisfy code requirements on their own but deliver code-compliant performance when used as part of a Resene Construction System's system and installed in accordance with the specific specifications.

These products must be handled carefully as a finishing material and kept dry during transportation and storage.

**Design requirements that would support the use of the building product:**

Specific applications, design and installation instructions are available for each system on our website. This outlines where this product should be installed as part of the wider system.

Mix ratio:	20kg plaster requires approx. 6L of water
Coverage:	10mm thick, Approx 1m <sup>2</sup> , subsequent coats 3mm thick
Substrates:	Brick, concrete, concrete block, stone
Abrasive strength:	Excellent
Adhesion:	Excellent
Vapour Permeability:	No vapour barrier formed
VOC:	N/A
Colour:	grey
Packaging:	20kg bags
Clean up:	Water while the product is wet
Use by:	6 months from date of manufacture
Storage:	Cool, dry place of the ground
Application Temperature:	+ 5 °C to + 30 °C
Usual No Coats:	1
Drying Time:	24 hours
Touch Dry:	4 hours
Dry to Recoat:	12 hours
Film Build:	Approximately 3mm dry film build per coat
Thinning:	N/A
Mean Vapour flow rate:	29.46g/m <sup>2</sup> d (ASTM E96/E96M-13 Water Method)
Mean Resistance:	3.75MNs/g (ASTM E96/E96M-13 Water Method)

**Installation requirements:**

Building work must be undertaken by competent and experienced tradespersons familiar with installing Resene Construction Systems systems.

Before applying the product, ensure the surface is clean, sound, dry and free from dust, dirt, grease, mould and lichen. Painted surfaces should have a slurry coat applied.

Any loose or unsound surface material must be returned to a solid base. The surface of glazed bricks must be removed with a scabbling tool to ensure a good plaster bond. A suitable key must be applied on smooth, dense concrete surfaces to provide a suitable bond for the Seismolock plaster. Where required, corner or depth gauge beads must be in place before the plaster application.

Render is applied not less than 5mm thick with a steel trowel. Apply with firm pressure, doubling back with more plaster to achieve a flat, uniform finish. Plastering techniques like screeding, floating and scraping can be used to achieve the desired flatness as required.

5mm is the minimum plaster thickness for the first coat over any substrate. When using Seismolock with embedded layers of fibreglass mesh, the first coat is 5mm thick, with subsequent plaster coats 3mm thick.

- One mesh plaster system - 8mm
- Two mesh plaster system - 11mm
- Three mesh plaster system - 14mm

- Four mesh plaster system - 17mm
- Five mesh plaster system - 20mm

The plaster mix can be applied to the wall by trowel, hopper gun or plaster pump. The plaster is applied in strips about one metre wide, and the mesh is laid against the wet Seismolock and then trowelled into the surface of the plaster.

Note: Ensure the fibreglass mesh is laid into the wet plaster in the direction specified by the designer. Generally, the mesh is laid in vertical drops, but for some design cases, the mesh is laid in horizontally.

The plaster and mesh application is continued in strips along the wall, with each new layer of mesh overlapping the preceding one by at least 150mm. If multiple layers of fibreglass mesh are specified, allow the preceding mesh and plaster coat to at least reach the Initial set stage before applying the next coat of plaster. Try to organise your work so that whole wall areas are completed in one day. When an area can't be completed in one day a CONSTRUCTION JOINT must be formed to allow the next day's work to be lapped into the previous reinforced mesh coats. The diagram below shows how to form a construction joint with at least 500mm of fibreglass mesh exposed at each layer with a stepped or staggered system to ensure adequate bond and continuity at the joint.

Do not let Seismolock dry out for the first 48 hours. Protect the newly applied Seismolock from temperature extremes and rain for at least 24 hours. Apply Seismolock plaster only when the temperature is between 10 to 35° and will be in that range for the 24-hour period after application. Aim to work on the shaded areas of the building, avoiding walls in direct sunlight.

#### **Maintenance, Environmental and Safety Requirements:**

Wash equipment and spills as soon as possible with water.

Ensure washing water does not enter waterways. Wet waste should be disposed of in empty bags and, once dry, disposed of in trade waste. The powder is irritating, and appropriate PPE dust masks are advised when handling. The wet compound is alkaline, and prolonged skin contact should be avoided. Wear rubber gloves, dust masks and safety glasses when handling products.

Material Safety Data Sheets are available upon request or access directly from

<https://reseneconstruction.co.nz/technical-library/safety-data-sheets/>