

# DuraTherm Blue - Insulated Foundation System - Duratherm Blue Insulated Foundation (33mm) - Mineral RenderSpec

## General

### Description of Works/Specification Notes

Perimeter insulation brings significant gains in energy efficiency.

Insulating the perimeter of the foundation slab is one of the most efficient methods to improve the thermal performance of your home. Depending on the circumstances, combining underslab insulation with our slab edge insulation system can result in thermal performance of the concrete slab improving by 100% or more.

By insulating the perimeter this will give a relative improvement to the thermal performance of the floor slab. A complete thermal barrier to the weather extremes' which will keep your home cooler in summer and warmer in winter.

Our DuraTherm does not allow moisture to penetrate the insulation cells.

Protected with a layer of hydrophobic, flexible plaster and reinforced with fibreglass mesh.

Finished with one of our premium texture surfaces and overcoated with the Resene Colour of your choice to complement the exterior.

### Properties

- 33mm thick DuraTherm insulation - Pre-coated & reinforced - Formed leading edge to keep cladding cavity open - Mineral adhesive connection - Tough & Durable - Fast, Lightweight & easy installation - Thermal envelope - Thermal Resistivity (R-Value) 1.0 R W/(m2.K) - Thermal Conductivity 0.033 W/(m.K)

## Building Code Compliance

If the project has a building consent then the following clauses apply.

### B2 - Durability

This specification complies with the requirements as set out in B2 - Durability which must always be considered when demonstrating compliance with each of the clauses of the Building Code. It ensures that a building throughout its life will continue to satisfy the performance of the Building Code. It confirms the use of materials that will remain functional throughout the specified intended life of the building, but not less than 50, 15 or 5 years

This cladding system meets the expected durability of the NZBC of at least 15 years

### H1 - Energy Efficiency

This specification complies with the requirements as set out in H1 - Energy Efficiency which Provides for the efficient use of energy and sets physical conditions for energy performance

### On Going Maintenance Instructions

Provide ongoing maintenance instructions required to meet the performance requirements of the NZBC.

### Building Consent Authority Requirements

All the appropriate inspections are to be carried out by a BCA representative and that it complies with the NZBC requirements.

## Documents

### Abbreviations

The following abbreviations are used throughout this work section:

- BCA - Building Consent Authority
- LBP - Licensed Building Practitioner
- PPCS - Proprietary Plaster Cladding System
- MPNZA - Master Painters of New Zealand Association
- MSDS - Material Safety Data Sheet
- NZBC - New Zealand Building Code

### Manufacturers Documents

Copies of the above relevant company documents referred to in this specification are available at;

Resene Construction Systems  
Web: [reseneconstruction.co.nz](http://reseneconstruction.co.nz)  
Telephone: 0800 50 70 40

### No Substitutions

Substitutions are not permitted to any specified Resene Construction Systems system. Materials and execution to Resene Construction Systems specification except where varied by this specification and supported by architectural detailing.

## Qualifications

Use only LBP registered plasterers licensed to apply the Resene Construction Systems exterior render systems.

## Documentation

### Finish Sample

Submit one 300 mm x 300 mm sample of the selected texture finish and colour for approval on request by the main contractor or specifier. Obtain signature of acceptance on sample and return to the Registered Plasterer.

### Maintenance Instructions

Provide Resene Construction Systems Maintenance Guide on or before practical completion of the contract for issuing to the building owner. Resene Construction Systems Maintenance Guide to be provided on request.

### Producer Statement

If the project has a building consent then a producer statement shall be supplied by the plasterer in the form as required by the BCA.

## Health and Safety

Refer to the requirements of the Health and Safety in Employment Act 2015 and Worksafe NZ: Guidelines for the provision of facilities and general safety in the construction industry. If the elimination or isolation of potential hazards and risks is not possible then minimise hazards and risks in this work on site by using the proper equipment and techniques as required in the MPNZA Painters hazard handbook. Supply protective clothing and equipment. Inform employees and others on site of the hazards and put into place procedures for dealing with emergencies. Obtain from Resene Construction Systems the Material Safety Data Sheets for each product. Keep sheets on site and comply with the required safety procedures. Confirmation at the start of the project as to whether a Site Specific Safety Plan is to be produced by the Registered Plasterer prior to works starting.

## Warranty

Warrant this system under normal environmental and use conditions against failure. Resene Construction Systems system warranty.

Materials: by Resene Construction Systems - 15 Years Materials only

Execution: by Registered Plasterer - 5 Years Workmanship only

## OnSite Assistance

Allow to inspect the whole of the work at each stage. Determine a programme for onsite assistance including notification when each part and stage of the work is ready for inspection prior to the work commencing. Permit representatives of Resene Construction Systems to inspect the work in progress and to take samples of their products from site if requested.

## Components Used

### AAC Adhesive

- Polymer-modified, cement based dry plaster mix. Supplied in 20kg bags.

### MultiStop Bedding Compound

- Polymer-modified, cement based dry plaster mix. Supplied in 15kg bags.

### Resene Construction Systems Mesh - Jointing

- 75mm Wide
- 5mm x 6mm Grid
- 160 gsm
- Supplied in 50 lineal metre rolls

### Ezytex Float

- Polymer-modified cement-based dry plaster mix. Supplied in 20 kg bags

### Resene Limelock

- Water based acrylic polymer dispersion. Supplied in 10 litre pails.

## Resene X200

- Acrylic reinforced waterproof membrane. Supplied in 4 and 10 litre pails. Tinted to the selected colour

## Soudal Gorilla MS Sealant White

Gorilla MS is a high performance MS sealant, which is UV-resistant, waterproof, paintable\*, solvent-free and with superior flexibility.

Ideal for the sealing of expansion and connection joints with a wide range of movement. Suitable for a wide range of substrates including blockwork, brickwork, granite, marble, timber, coated and uncoated aluminum.

Supplied in 420gm cartridges

### Features and Benefits:

- Non slump
- The whitest of whites
- 900% elongation of break
- High performance MS
- BRANZ Appraised
- Works on damp surfaces
- Paintable 1 hour after application
- UV resistant
- AsureQuality tested
- Easily repairable
- Interior & exterior
- Solvent-free

## Installation/Application

### Check and Prepare Masonry / Clay brick veneer Substrate

Preparation based on new substrate installations.

#### Preliminary Checks

Check that all exposed surfaces of the substrate are straight, plumb, and undamaged. If any loose bricks are identified, they must be removed and replaced. Ensure that pointing has cured according to the manufacturer's specifications prior to render application.

#### Wall Alignment

Using a straight edge, check joints are smooth and that the wall is flat and true. The Render coating is not designed to straighten deviations that exceed the specified Rockcote Render System thickness.

#### Weep Holes

Weep holes must be kept clear of Render unless an alternative solution is accepted by the BCA.

#### Builder Supplied Flashings

**Make sure all builder-supplied flashings are in place. The architectural drawings provide a list of possible flashings.**

#### RCS Flashing Installation

Refer to the flashings as outlined within the Resene Construction Systems Specification.

#### Control/Expansion Joint Setouts

**For more information about control joints refer to the technical note on the Resene Construction webpage at the following link <https://reseneconstruction.co.nz/control-joints/>**

The main contractor/substrate installer is responsible for all control joints, which must comply with the substrate supplier's specifications.

#### Clay bricks

Control joints shall be included at locations specified by the brick manufacturer.

#### Concrete bricks

Control joints shall be included as specified in the New Zealand Concrete Masonry Manual and in any other locations specified by the brick manufacturer.

Clean Surface

**When the substrate has been left for a period of time, dust and dirt may build up on the surface. This contamination must be removed prior to render application.**

Masking

**Before applying the render, masking must be applied to all joinery, pipes, roofs, and all areas likely to be marked by the render. Use drop cloths and ground covers to keep the working areas clean.**

Colour selection

For more information about light reflectance values refer to the technical note on the Resene Construction webpage at the following link <https://reseneconstruction.co.nz/light-reflectance-values/>

Improve adhesion

If Render is being applied to the masonry wall, wet the wall down, or apply a solution of Rockcote Acrylbond and Water – ratio 1 part Acrylbond : 4 parts water to minimise the suction of the substrate.

*Allows the render to maintain moisture content for longer, providing greater working time. This process assists with the initial hydration / curing of the render application.*

## Plaster Systems AAC Adhesive Notch/Key Coat

Surface Preparation

Ensure surface is clean, sound, dry and free from dust, dirt, grease, mould and lichen.

Application

Plaster to be applied with a notched tile trowel (3-5mm notch) across the entire surface of the substrate immediately prior to installation.

Apply plaster only when the temperature is between 5°C and 30°C and will be in that range for the 24 hours period following application

If you are using the notched key coat for adhering a substrate or moulding to a masonry surface ensure that in summer or hot dry conditions pre-wet the masonry substrate. Allow the wet sheen to dissipate. This will reduce the chance of delamination due to rapid suction from the dry/hot substrate.

Curing:

Protect newly applied plaster from rain and water run off for the first 24 hours.

## Duratherm Blue 33mm Insulated Foundation

Application

Install the board horizontally over the top of a wet applied plaster that has had a notched trowel run through it.

Ensure the board returns up behind any claddings where possible and without blocking of any cavity closers.

## Rockcote MultiStop Bedding and Mesh Jointing System

Surface Preparation

Ensure surface is clean, sound, dry and free from dust, dirt, grease, mould and lichen.

Application

Rebated joints in the cladding sheets are filled using Rockcote MultiStop Bedding Compound which is reinforced with a Rockcote Jointing Tape embedding into the MultiStop Bedding Compound ensuring the joint is level with surrounding sheet plane before leaving to dry overnight.

Plaster can be applied with a steel trowel or broad-knife at approximately 2mm thick. Apply plaster only when the temperature is between 5°C and 30°C and will be in that range for the 24 hours period following application.

Curing:

Render should be protected from hot drying winds and direct sunlight for the first 16 hours. Protect newly applied plaster from rain and water run off for the first 24 hours.

## Plaster Systems Ezytex Float Level/Second Coat

Surface Preparation

Ensure surface is clean, sound, dry and free from dust, dirt, grease, mould and lichen.

Application

Plaster can be applied with a steel trowel, pump or broad-knife at approximately 1-2mm thick (8m2 per bag). Apply plaster only when the temperature is between 5°C and 30°C and will be in that range for the 24 hours period following application.

#### **Curing:**

Render should be protected from hot drying winds and direct sunlight for the first 16 hours. Protect newly applied plaster from rain and water run off for the first 24 hours.

### **Plaster Systems Ezytex Float Texture Finish**

#### **Application:**

Plaster is applied not less than 1mm (8m2 per bag) with a steel trowel to a flat finish then float using a circular action to an even texture over the following five minutes with a plastic float. Apply plaster only when the temperature is between 5°C and 30°C and will be in that range for the 24 hours period following application.

#### **Curing:**

Plaster should be protected from hot drying winds and direct sunlight for the first 16 hours. Protect newly applied plaster from rain and water run off for the first 24 hours. It is able to be sealed while the finish is still green.

### **Resene Limelock Sealer**

#### **Application**

Apply to trowelled plasters immediately after final trowelling (Dependent on surface porosity, typically 5-8m2 per litre). Apply one coat of Resene Limelock over the fresh substrate by commercial grade knapsack sprayer, spray, long pile roller or brush and allow to dry. Evenly coat all fresh surfaces to ensure uniform curing and that free lime cannot be transferred through weak points.

### **Resene X200 Paint Finish (2 Coats)**

#### **Application**

Use a 12-20mm synthetic fibre roller or texturing roller depending on surface. Apply two coats, First coat 2 sq. metres per litre, Second coat: 3.5 sq. metres per litre

#### **Maintenance**

Plan what maintenance you propose to undertake.

Take into consideration the type of work that is required, & the time of year you want to get it done. Most external maintenance is completed in the summer as this is generally the best weather for drying and for general outside work such as gardening. If you are planning on fixing brackets, security lights or any other fixture to the exterior make sure you have the skills & equipment to undertake the task.

If you are unsure call a specialist.

If it relates to a penetration through the exterior cladding call us direct on 0800 50 70 40 - a simple phone call could save you time & money later. Maintenance sounds difficult & costly - in fact, it can be quite the opposite.

It can become difficult & costly if it is never undertaken, by which time other issues may have arisen that could have been acted upon sooner through regular general maintenance.

There are virtually no "maintenance free" exterior claddings on the market, in fact, almost nothing is maintenance-free - many people tend to throw things away these days when they breakdown as it is cheaper than getting it fixed. This is not the case with your exterior cladding, you can't just throw it away, it is protecting your family & your belongings. It is quite interesting to note that most people maintain their garden, & vehicle so they look good. Yet when it comes to cleaning the exterior windows, & walls or clearing leaves from a blocked gutter it seems to get left alone as it is perceived to be "difficult" or there are better things to do, maybe the dirt & leaves will simply disappear one day. This generally isn't the case & regular maintenance is required.

One of your major life investments is property so why not look after it? General Maintenance is a requirement of the Resene Construction Systems Performance Guarantee.

#### **Extent of Maintenance**

The extent and nature of necessary maintenance is dependent on the

- Type of cladding or components used
- Position of cladding or components on the building
- Geographical Location of the building
- Specific site conditions.
- Areas that are considered non-maintainable
- Heavily textured areas

#### **Wash Exterior Surfaces**

You will need to clean down your Resene Construction Systems Plaster Finish every 12 -18 mths. Most airborne dirt particles accumulate on exterior surfaces during the summer months. So before the winter rain washes the dirt down over the walls, give these areas a clean, this will dramatically reduce the chances of your Resene Construction Systems Plaster Finish being stained.

Washing by rain removes most atmospheric contaminants, but sheltered areas, such as walls directly below eaves, are protected from the direct effects of rain and require regular manual washing. This work should be completed using a low-pressure water blaster (300 psi or less), keep the blaster at a 45-degree angle and 300mm away from the cladding when cleaning. For best results use "Resene Roof wash and paint cleaner". Apply the diluted solution with a soft broom, & wash off with copious amounts of freshwater. Most detergents have a detrimental effect on fish life so avoid letting the washings runoff into the stormwater system. DO NOT use harsh solvent-based cleaners.

However, it is important that high-pressure water is not directed at sensitive junctions such as window surrounds and other flashings. Great care must be taken to avoid water being driven past anti-capillary gaps and flashings into the wall cavities.

#### **Roof Junctions and Spouting**

When cleaning, check your spouting to make sure there are no leaves that could block drains, or overflows when it rains. Trim back branches and clear gutters at the same time. Consider fitting gutter guards (however, dirt can still get through, so you do need to check under the gutter guards from time to time). Check apron flashing diverters (kick-outs) to make sure these are diverting water away from the cladding.

#### **Deck and Ground Clearances**

Exterior claddings require a minimum ground clearance to ensure no moisture gets to the timber of the wall due to capillary action. Ground clearances between the cladding and ground/deck must be maintained. For more information on required Ground Clearances refer the NZBC..

If your lawn adjoins the house, a 150-225mm wide mowing strip along the edge will stop grass and weeds growing in these difficult-to-mow areas - and keep the area drier. A mowing strip will also prevent damage to the house from hitting the cladding with the mower. You can also use concrete, bricks, pavers or treated timber for a mowing strip, laid on a concrete base or on polythene but make sure there is at least 100mm gap between the pavers and the base of the cladding.

#### **Check Sealants**

Check for cracked, missing or loose sealant. You will find sealants have been used around windows, doors, electrical fittings, plumbing fittings and along the soffit line. All deteriorated sealants should be removed and resealed

#### **Check hidden areas**

Check behind foliage, under decks and areas that are heavily shaded for signs of algae and mould. If possible increase the circulation of air around these points by pruning foliage. The use of mulch, bark or stones in these areas will also lower the risk of algae appearing on the surface of the coatings.

#### **Damaged Areas**

Contact your Registered Plasterer they will provide the necessary expertise to remedy the damage. If you are unable to contact a registered Resene Construction Systems Plasterer call Resene Construction Systems - FreePhone 0800 50 70 40 -we will arrange for an inspection & provide an assessment for the repair the exterior cladding.

#### **Non-Maintainable Areas**

Parapets are considered non-maintainable areas. They are in such a location as the degree of difficulty to maintain these areas according to the general maintenance requirements of the building code without risk to your health and safety is considered high. If you have areas that are non-maintainable we would require that these are checked every 6 months. Any non-maintainable areas will also need to be repainted/coated every 2-3 years.

#### **Repainting a Dwelling**

Repainting the exterior should be undertaken by a professional painter every 7 - 10 years to ensure the integrity of the entire system is kept good. If you select a colour which has an LRV less than 25% you can expect to repaint every 7 years. It is recommended that when you repaint your dwelling that you consider the use of Resene X200 as your choice of paint.

#### **Maintainable Parapet Areas utilising Liquid Membranes**

If you have areas that have maintainable liquid membrane eg.large sloping sills, balustrades, chimney breasts we would require that these are checked every 12 months. Any maintainable areas will also need to be repainted/coated every 3-5 years.

#### **Important:**

*This specification must be read in conjunction with the Resene Construction Systems technical drawings.*

*No alteration to the Resene Construction Systems RenderSpec® is permitted.*

*All Technical Data Sheets are available at <https://reseneconstruction.co.nz/technical-library/technical-data-sheets/>*

*All Safety Data Sheets are available at <https://reseneconstruction.co.nz/technical-library/safety-data-sheets/>*