XTHERM GOLD Insulated Facade System - 100mm XTherm Gold over Timber Frame - RMaxx RenderSpec

General

Description of Works/Specification Notes

This specification deals with Insulated Facade System applied over a 100mm XTherm Gold substrate.
The system incorporates the installation of a 20mm drainage cavity and mineral texture finish.
Thickness – 106mm (min/average excl cavity size)
Weight – 9 kg/m2
Windzone – All wind zones of 3604 and specific design wind pressures up to 2.5kPa design differential ULS
Durability – 15 year warranty / expected durability from BRANZ 30 years
Testing – BRANZ appraisal certificate # 633(2018)

Building Code Compliance

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

B1 - Structure

This specification complies with the requirements as set out in B1 - Structure which requires buildings, building elements and sitework to withstand the combination of loads and physical conditions they are likely to experience during construction, alteration and throughout their lives. Loads and physical conditions include self-weight, temperature, water, earthquakes, snow, wind, fire.

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

E2 - External Moisture

This specification complies with the requirements as set out in E2 - External Moisture which demonstrates External roof, wall claddings and external openings will prevent external moisture from causing undue dampness or damage.

F2 - Hazardous building materials

This specification complies with the requirements as set out in F2 - Hazardous building materials which safeguards people from illness and injury from quantities of gas, liquid, radiation and solid particles caused by exposure to building materials

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 Clading 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
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

GRAPHEX Cavity Battens 21mm (self adhesive)

- 40mm x 20mm H-Grade Graphex Peel and Stick Batten
- Supplied in Boxes
- 228 units in a box
- AS 1366 Part 3 Class H (with fire retardant).

Coarse Mesh Render

- Supplied in 20kg Bags

MultiStop Bedding Compound

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

Acrylbond Resin - 20kg

- Multi-purpose Resin supplied in 20kg containers

Resene X200

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

RMaxx Render

RCS RMaxx - is a high-yielding, cement-free dispersion based basecoat mortar. Thanks to its high elasticity, it can prevent the formation of cracks and is thus also ideal for use as renovation filler.

XTherm Gold 100mm

- 2400 x 1200
- 100mm Thick
- Allow for 7% Wastage when Installing
- AS 1366 Part 3 (with fire retardant).

Classico Texture

- 100% acrylic, high-build texture coating. Supplied in 15 Litre pails

Mesh - Blue (1200mm wide)

- Alkali Resistant 6mm x 5mm Weave mesh supplied in 50m rolls

Bostik Safeseal 430gm White Cartridge

- 430gm Cartridges

Bostik Tuff as Nails

- 375ml Cartridge

Screws 150mm x 14g - Galvanised

- 14 Gauge
- 100 per Box
- Stainless Steel

Soudal Gorilla Flexi Expanding Foam Click & Fix

Gorilla Flexi Expanding Foam is a self-expanding, highly flexible, reusable polyurethane foam for use with the Gorilla Click & Fix Foam Gun. Very high elastic recovery, excellent adhesion on most substrates, very good filling capabilities, low expansion, and good compressibility.

Easy application on movement joints and vibrating constructions. Use as fixing foam while minimizing noise transmission, impact and shock damping, sealing windows and doorframes, filling of cavities, sealing of all openings in roof constructions, creation of a soundproof screen, connecting of insulation materials and roof constructions, soundproofing layer on motors and improving thermal insulation in cooling/heating systems.

Resene Construction Systems Pre-meshed Corners

- Supplied in 2400mm Lengths

Resene Construction Systems EdgeSeal Window Flashing

- Used for sill and jamb installations
- Supplied in 2400mm lengths

Resene Construction Systems EdgeSeal Head Flashing

- Supplied in 2.4m Lengths
- Generally requires the Drip Edge Flashing

Resene Construction Systems Drip Edge - Small

- Supplied in 2400mm Lengths
- Used with both the EdgeSeal Head Flashing and also the Universal Starter Strip

Resene Construction Systems Starter Strip Universal

- Supplied in 2400mm Length/s
- Suitable for a variable substrate and cavity up to 95mm wide
- Utilise a Universal Drip Edge with this flashing

Installation/Application

Timber Frame

Check Fixings

Timber Framing must comply with NZS 3604 for building or parts of buildings within the scope limitations of NZS 3604. Buildings or parts of buildings outside the scope of NZS 3604 must be to a specific design in accordance with NZS 3603 and AS/NZS1170. Where specific design is required, the framing must be of at least equivalent stiffness to the framing provisions of NZS 3604. In all cases, studs must be at a maximum of 600 centres.

It is the builder's or framing installer's responsibility to ensure it is set out true in the correct alignment, as required by the Designer. Before installing insulation boards, check framing is true and in the correct alignment with studs at a 600 mm maximum centres and blocking is provided for support of the substrate, e.g., around all openings, at soffits, at joints, and at internal corners.

Ensure that any framing has a moisture content of no more that 18% mc prior to installing substrate. Refer to E2/AS1 section 11

Alignment of Walls

To be plumb, level and in true alignment.

A check should be made prior to render installation, using a straight edge to ensure the wall is flat. Any irregularities should be taken out by straightening the studs.

Builder to re-align framing when it is not in the correct alignment, and insert additional blocking if required.

Builder Supplied Flashings

Make sure all builder metal flashings, saddles flashings and back flashings are in place.

Battens - Graphex 20mm

General

Drained and ventilated cavities are seen as one way of dealing with moisture that may enter through the exterior envelope. Resene Construction Systems recommends the use of cavities.

When a drainage cavity is used, it should consist of an air space outboard of a building underlay fixed to the framing, with approved flashings to drain water to the outside face of the cladding.

Limitations

Vapour from freshly LOSP-treated timber may melt styrene based battens.

Fixing Battens

Adhesive fixing to the building underlay. This is probably the quickest method of fixing battens. The adhesive acts as a temporary fixing, and it will be permanently fixed upon nailing the substrate in place. Under no circumstances should any solvent-based adhesives be used, as these will melt the battens.

Remember the battens only need to be temporarily held in place, for when you fix the substrate at the appropriate centres this will secure all the battens in place.

Fix vertical battens on stud lines. Vertical battening must be the full height of the cavity, but battens may be joined (butted) to achieve this.

Take account of where cladding fixings will be needed for the exact location of the battens. For example, at corners or cladding junctions, provide additional or wider battens as required for fixing the cladding, back-flashings or facings.

Where an intermediate or horizontal fixing is required, for example to fix the top or bottom edge of sheet cladding, install a cavity spacer (short length of batten) on a minimum 5° slope. Leave a minimum 50 mm gap between the spacer and the vertical battens (the gap is to provide drainage and ventilation)

Closing off the top of the cavity

Close off the top of the cavity to prevent damp air from the cavity getting into interior spaces, roof framing or eaves. This is particularly important where the cavity finishes beneath a soffit or other area that might be open to a roof space.

One way of closing off the top of the cavity is to use a continuous length of horizontal batten. The horizontal batten also supports fixings at the top edge of sheet claddings where required.

Another way to close of the cavity is to use flashing tape between the underlay and soffit framing prior to fixing the soffit in place (this is the recommended method if you are top venting your facade)

Ventilation is not required at the top of a cavity (note that masonry veneer uses a different cavity system that does require top venting). For those that want to ventilate the top of the cavity make sure you utilise the RCS "Vented Soffit Flashing" and ensure you use flashing tape rather than a horizontal batten.

Cavity walls over two storeys

Refer to E2/AS1 Paragraph 9.1.9.4

Cavities may be continuous up to two storeys or 7m maximum but not more, due to limits on drainage and drying. If the wall is greater than two storeys or 7m, divide the cavity using a horizontal flashing that bridges the cavity. Provide ventilation to the cavity above the junction, as described for the base of the wall.

It is the builder's responsibility for the supply and installation of the horizontal flashing according to E2/AS1.

Existing Substrates – over timber framing

Generally deals with existing weatherboard or rigid backing boards (fibre cement sheet)
Battens must be screw fixed to ensure positive fixing through to the structural framing.

Screw fixing of battens is recommended as existing internal linings may be damaged if nails are hammered into the structural framing.

Xtherm Gold Sheets 100mm

There must be no horizontal surfaces which will be subject to water ponding; a minimum slope of 5 degrees is required (for metal caps only, 10 degrees for liquid membranes).

Ground Clearances

It is important that ground clearances are maintained after completion and occupation of the building, with the exterior ground sloped to carry water away from the exterior walls.

Garage floors

Need to be low enough to drive onto and high enough to provide a minimum 50 mm step-down to exterior paving, while maintaining cladding clearances either side of the garage door. To achieve this it may be necessary to construct the garage floor lower than the floor level of the building.

In these situations, providing a 'nib' at garage doorways allows the cladding to continue in a straight line while maintaining minimum clearances at the bottom of wall cavities for ventilation.

E2/AS1 : reference section 9.1.3 and Figure 65 and Table 18

It is the landscaper or other external contractor's responsibility for ground-level compliance in relation to cladding clearance and that ground clearances are maintained after completion and occupation of the building.

Decking Clearances / Level thresholds

35mm minimum clearance at the highest point of the deck to the cladding is required.

E2/AS1 : reference section 7.0

Control/Expansion Joint Set outs

- Where columns intersect beam work control joints should be formed so that they are running vertically and horizontally of the intersection
- Large doors & windows ie Ranch Sliders, & Bi-Fold type where the window area is greater than 8.0m2
- Junctions between dissimilar materials, ie Masonry to Resene Construction Systems System
- Where there are small widths of plaster (ie. less than a trowel width)
- Where the wall length is greater than 8 metres in length a vertical control joint will need to be installed
- Inter-storey Drainage Joints must be provided for walls exceeding two storeys or 7 metres in height, in accordance with NZBC E2/AS1 Clause 9.1.9.4(b).

2.6.6.Substrate Installation

All XTHERM Gold insulation boards must be installed; vertically, be fully supported on all edges and butt-jointed hard against each other. Where a sheet join is fully supported on timber framing, one nail and washer may be used to fix both sheets. Any gaps between sheets must not be greater than 5mm. All gaps must be foam filled

Substrate Preparation

Check should be made using a straight edge to ensure the wall is flat, plumb and true. Any irregularities should be taken out by straightening using a rasp.

The Render coating is not designed to straighten deviations that exceed the specified Render System thickness.

Once the substrate is deemed ready for plaster, then the main contractor can continue to fix the internal linings. This is so that the main contractor can minimise the chance of any damage to the external plaster cladding that may be caused by the fixing process of the internal linings.

The product typically comes with a black/white glass fabric on either side of the finished product. Any loose fabric should be trimmed from the PIR to ensure that the plaster has a sound substrate to key to.

Screws 150mm x 14g Galvanised (styrene substrates)

Fix panels with fasteners as given in Table 1 – Fastener Sizes

Fix fasteners into studs at the fixing centres shown in Table 2 – Fastening centres

Fixings must be finished flush or slightly below the surface with the panel, pulling the substrate hard back against the cavity batten.

Where studs are at 600 centres a single screw into midpoint of the dwang/nog/bottom plate between studs.

Table 1 – Fastener Sizes

Framing Type	Batten Size/Type	Panel Size	Screws per stud	Screw Size
Timber/Steel	20mm Graphex/EPS	75mm	3	125mm x 14g
Timber/Steel	40mm Structural Timber	75mm	3	100mm x 14g
Timber/Steel	40mm Graphex/EPS *	75mm	3	150mm x 14g
Timber/Steel	20mm Graphex/EPS *	100mm	3	150mm x 14g
Timber/Steel	40mm Structural Timber	100mm	3	125mm x 14g

Table 2 – Fastening centres

NZS 3604 Building Wind Zones	Fastening centres (mm)
Low	300
Medium	300
High	300
Very High	200

NZS3604 Wind Zone Extra High and Specifically designed buildings up to 2.5kPa design differential ULS wind pressure with studs at maximum 400mm centres.

Maximum vertical fixing centres (mm) along studs	Maximum horizontal fixing centres (mm) along top and bottom plates	Maximum horizontal fixing centres (mm) along dwangs
150	200	150

Variable Cavity and Substrate Flashing Solution (up to 125mm width)

General Notes

Comply with the Trade Specific penetration flashing guidelines. Carry out to the required standard of execution to ensure water does not penetrate.

Refer to Resene Construction Systems technical drawings for the specified system being installed.

Priming Flashings

All Resene Construction Systems Flashings must be primed. It is a requirement of Resene Construction Systems to use a solution of 50% Acrylbond, 50% Water and Rockcote MultiStop Bedding compound or AAC Panel Compound. This is then brushed on to the flashings and left 24 hours so that it can adhere and cure.

Fixing flashings

Use 40mm galvanised clouts to temporarily fix flashings in place.

Starter Strip/Channel Installation

Must be installed 50mm below finished floor level directly after sheet installation at ground level to prevent contamination of the bottom edge.

Vertical control joint installation

Where a vertical control joint intersects with starter strips, the starter strip must be cut to allow for substrate movement.

10mm space between adjacent substrate must be allowed for the positioning of horizontal control joint.

Must be one continuous length. If cladding section exceeds flashing length, the joint must be under-flashed with Butyl based flashing tape to the underside of the flashing prior to installation.

Horizontal control joint installation

30mm space between adjacent substrate must be allowed for the positioning of horizontal control joint.

Must be one continuous length. If cladding section exceeds flashing length, or at an external or internal corner the joint must be under-flashed with EIFS butyl tape to the underside of the flashing prior to installation.

Corner Beads

Fix to external corners or other exposed edges of the substrate ensuring a plumb, straight edge is formed.

Dissimilar cladding junctions

Refer to Resene Construction Systems and adjacent cladding manufacturers technical drawings.

Horizontal

Must have apron/z-flashing installed unless otherwise detailed.

Vertical junction

Must have back flashing installed prior to cladding installation.

10 – 15mm space must be provided from any adjacent cladding / substrate.

Oversize PEF Backing Rod must be inserted into the space 5mm-7mm below the outside line of the cladding.

Sealant must be applied to this junction.

EdgeSeal™ Flashing Suite Installation

Preparation – aluminium joinery

Clean the surface / substrate to which the Resene Construction Systems EdgeSeal™ Flashing Suite is being applied with Resene Construction Systems IPA wipes. Lightly rub the surface to which you are applying the Resene Construction Systems EdgeSeal™ Flashing Suite.
This process degreases and removes any pre and post construction site residue.
DO NOT USE OTHER NON APPROVED CLEANER as the powder coat warranty may be voided.

Ensure the joinery has been set out of the framing at least 20mm or outside the line of the battens.

The EdgeSeal™ Flashing Suite acquires maximum hold after 72 hours. Cladding installation can continue during this curing period. Once cured the flashing cannot be removed without difficulty and risk of damage to the surface to which it is adhered.

The EdgeSeal™ Flashing Suite can be made up of 2 lengths, please ensure that the flashing is tight butted with the adjoining flashing.

Joinery Screws

If the Aluminium joinery has protruding screws along any edge, then you must trim the EdgeSeal™ Window Flashing adhesive and uPVC edge accurately around these and seal with MS sealant prior to priming.

Drainage holes

If the Aluminium joinery has drainage holes located along the underside of the aluminium 'sill' edge you must leave these areas clear of plaster and sealant. When you are installing the EdgeSeal Flashing make sure you remove out a section of the EdgeSeal Flashing so that the drainage holes on the joinery are left clear. The upstand on the EdgeSeal Flashing must remain upright and continuous behind the holes. This will prevent wind driven rain entering the back of the cavity, and maintain drainage to the outside face of the cladding system.

EdgeSeal™ Sill Installation

1. Measure the length of EdgeSeal™ Window Flashing 'oversize' by 20mm (10mm on each side of the opening).
2. This measurement is to the outside edge of the 'flexible elbow' of the jamb flashing.
3. To ensure accuracy 12mm past the outside edge of the opening.
4. Remove a corner of the backing tape from the adhesive edge of the prepared flashing.
5. Applying horizontally across the edge of the aluminium joinery so that the edge of the adhesive is flush, not proud of the front face of the aluminium joinery.
6. Slowly pull off the tape while holding the flashing in position
7. Apply pressure to the front of the flashing to make sure an adequate bond has been achieved between flashing and joinery
8. Tack the flashing in place to maintain its shape

EdgeSeal™ Jamb Installation

1. Measure the length of the jamb from the top corner of the joinery unit to the exposed surface of the installed EdgeSeal™ sill flashing.
2. Cut the Rockcote EdgeSeal™ Window Flashing approximately 1mm proud of total length – cutting 1mm extra length will allow for a tight 'compressed' joint where the EdgeSeal™ Window Flashing junctions to the sill.
3. Remove 100mmof the backing tape from the adhesive edge of the prepared flashing.
4. Install the flashing by slipping and butting firmly under the EdgeSeal™ Window Head Flashing (or aluminium flashing depending on what is being used) first, then align the front edge of the flashing flush with the joinery unit..
5. Slowly pull off the tape while holding the flashing in position.
6. Apply pressure to the front of the flashing to make sure an adequate bond has been achieved between the flashing and joinery unit.
7. Tack the flashing in place to maintain its shape

EdgeSeal™ Head Installation

1. Measure the length of the Window Head and allow an extra 10mm on either side of the joinery unit (sill flashing should be measured and cut to the same dimension)
2. Cut the EdgeSeal™ Window Head Flashing to length.
3. Remove 100mm of the backing tape from the adhesive edge of the prepared flashing.
4. Place the EdgeSeal™ Window Head Flashing on top of the Window Head and slowly pull off the tape while holding the flashing in position
5. Apply firm pressure to the front of the flashing to make sure an adequate bond has been achieved between flashing and joinery
6. Using the same measurement as above, cut a length of Head Flashing tape that is compatible with the building wrap (eg. 3M All Weather Flashing Tape)
7. Adhere the Head Flashing Tape to the top part of the EdgeSeal™ Window Head Flashing and run this up onto the building wrap
8. At either end create a small stop end by turning up the tape against the cavity batten, you need to prevent moisture from tracking off the ends of the Flashing Tape.
9. Install the cladding substrate and decide whether you are plastering or painting the heads.
10. If you are painting the heads install the Universal Drip Edge Flashing between the cladding substrate and the EdgeSeal™ Window Head Flashing

Check and Prepare XPS

Preparation based on new substrate installations.

Preliminary Checks

A straight edge should be used to check that the wall is flat, plumb, and true. Any irregularities should be removed by straightening with a rasp.

XPS substrate must be rasped to provide keying for the render application.

The render coating is not designed to straighten deviations in the wall.

Once the substrate is deemed ready for plaster then the main contractor can continue to fix the internal linings, this is so that the main contractor can minimise the chance of any damage to the external plaster cladding that may be caused from the fixing process of the internal linings.

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.

Clean Surface

If the substrate has been left exposed to UV / sunlight for more than two weeks, dust and dirt may build up on the surface, the surface may also discolour (yellow) you must remove all surface dust, oxidisation, and other contaminants to reveal fresh polystyrene. Use a rasp or a stiff broom to prepare the substrate.

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/

Penetrations

PVC-sheathed electrical cables must be prevented from direct contact with the sheets. When cables must penetrate the sheets for exterior electrical connections, the cable must be directly supported by passing through an electrical conduit.

Resin/MultiStop Bedding Slurry Coat

Surface Preparation

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

Application

Mix a solution of Acrylbond and Rockcote MultiStop together and apply using a roller or brush. A high solids roller can also be used to ensure the solution is evenly distributed across the wall surface.

For pourous substrates (eg. brick, concrete) mix a 50:50 5L mix of Acrylbond/water and a 1 kg of MultiStop/AAC Adhesive/Hydroplast to the mix.

For other surfaces (including painted) ensure a 5 Litre of Acrylbond is mixed directly with 1 kg of MultiStop/AAC Adhesive/Hydroplast.

If you are unsure of the surface you are applying the slurry to, apply to a small section of wall and test for adhesion.

Plaster Systems Coarse Mesh Render - Base 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 3-5mm thick (3m2 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.

Resene Construction Systems RMaxx - Base Coat

Surface Preparation

When using RMAXX make sure the substrate is clean, sound, dry and free from dust, dirt, grease, mould and lichen. If necessary, water blast, sand or rasp the surface accordingly. For reworking old facades, substrates should be clean, dry, stable and free from loose particles. Always remove any film-forming release agents. Brush down thoroughly or water blast (and leave to dry afterwards) previously rendered surfaces. Highly-absorbent substrates are to be primed with RCS RenderPrep primer. Check tensile bond strength of critical substrates.

Application

RMAXX is ready for use after stirring. Apply RMAXX with a stainless steel trowel to a thickness of about 2-3mm. Dilute with max. 1 % clean water, if necessary. The reinforcement mesh (5x5 mm mesh size) must be completely embedded in the basecoat mortar and fully covered by it. Do not apply when substrate or ambient temperatures are below + 5 °C or in excessive heat above + 30°C. For reworking old facades, it may be necessary to use a 2layer buildup with reinforcement mesh. Allow the RMAXX to dry between layers.

Curing

In normal conditions (+ 20°C / 65 % relative humidity) allow approx. 24-48 hours for drying subject to the application thickness. During the setting and drying process, water evaporates from the material which is why it is significantly influenced by the ambient temperatures. Lower temperatures and/or higher humidity may extend the drying time.

Application of Resene Umbrella additive to assist the improvement of dry times can be added to the RMAXX prior to application.

Resene Construction Systems Mesh (Standard Weave)

General

Measured and cut slightly longer than the height/length of the area to be covered.

Application of Fibreglass Mesh

Apply the pre-measured mesh from the top of the wall.

Press the fibreglass mesh into the render mix with a steel trowel starting at the centre and working outwards towards the sides, so that it is completely embedded with the render mix forced right through the mesh holes.

Ensure there are no wrinkles or trapped bubbles in the mesh and that it is fully embedded just below the surface of the render.

Do not embed the leading edge of mesh as this locates your next mesh layer.

Mesh must not be exposed but retained as close to the surface as possible.

Overlap mesh 100 mm with the adjacent drop of mesh, and trowel to embed together.

Ensure the fibreglass mesh covers all exposed areas of the substrate, including any recesses around the exterior joinery and internal corners.

Fibreglass Mesh must be bought to the outside edge of all Flashings.

Apply 450 x 150 mm strips of fibreglass mesh `butterflies' diagonally at every corner of openings for window and door joinery, meter boxes etc.

After the render mix has cured, trim off excess length accurately against the flashing edge.

Resene Construction Systems RMaxx - Level Coat

Surface Preparation

When using RMAXX make sure the substrate is clean, sound, dry and free from dust, dirt, grease, mould and lichen. If necessary, water blast, sand or rasp the surface accordingly. For reworking old facades, substrates should be clean, dry, stable and free from loose particles. Always remove any film-forming release agents. Brush down thoroughly or water blast (and leave to dry afterwards) previously rendered surfaces. Highly-absorbent substrates are to be primed with RCS RenderPrep primer. Check tensile bond strength of critical substrates.

Application

RMAXX is ready for use after stirring. Apply RMAXX with a stainless steel trowel to a thickness of about 1 mm over the existing mesh coat of RMAXX. Dilute with max. 1 % clean water, if necessary. Allow the RMAXX to dry between layers. Once dry (see “Curing”) or hardened, a finishing render from the Resene Construction Systems suitable for RMAXX can be applied, e. g. Rockcote Classico.

Wait at least 24-48 hours before applying classico and subsequent paint coats.

Curing

In normal conditions (+ 20°C / 65 % relative humidity) allow approx. 24-48 hours for drying subject to the application thickness. During the setting and drying process, water evaporates from the material which is why it is significantly influenced by the ambient temperatures. Lower temperatures and/or higher humidity may extend the drying time.

Application of Resene Umbrella additive to assist the improvement of dry times can be added to the RMAXX prior to application.

Rockcote Classico Texture Finish

Limitations

Check colour before use
Ensure same batch numbers are used on a single wall where possible
Should not be applied in temperatures below 5ºC or above 35ºC
Not suitable for areas of continual damp or areas submerged in water

Surface Preparation:

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

Application

Texture is applied not less than 1mm 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.

Coverage approximately 12m2 per pail

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 foilage. 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/