

*Wattyl Granosite / Nu-Age Plaster has been consistently delivering quality dry mortar products for use on New Zealand buildings since 1995, together with break-through application technology
Wattyl Granosite / Nu-Age site Nu-Age Plaster has transformed the construction industry and raised building standards, in order to produce and supply a better quality cladding solution.
For the right choice in Plaster cladding solutions, choose Wattyl Granosite / Nu-Age Plaster
and we we'll guarantee 'your peace of mind'*

System Description

The Nu-Render Cladding Solution is a plaster cladding system applied directly over Clay Brick and Masonry. A 3-5mm base coat of polymer modified Portland cement-based plaster is applied to the substrate followed by a 1-2mm coat of Skim Coat. It is then finished with a selected acrylic or cement based texture and overcoated with GranoImpact, a water based elastomeric membrane paint system to the desired finish colour.

Nu-Render is designed to be applied on residential to light commercial structures where domestic construction techniques are applied.

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1. SCOPE AND LIMITATIONS OF NU-RENDER

1.1. Scope

Nu-Render is a Proprietary cladding system for use within the following scope:

- On residential and light commercial timber frame buildings.
- On buildings built within the scope limitations set out in NZS 3604 in regard to building height, number of storeys, shape and size.
- On buildings situated in NZS 3604 Building Wind Zones up to, and including 'Very High'.
- With aluminium window and door joinery.
- With installation carried out only by WattyL Granosite / Nu-Age Trained applicators.

1.2 Site and Structural Requirements

Foundation design to comply with requirements of NZS 3604:1999 or be designed and approved by Structural Engineer.

Timber framed buildings to be clad with Nu-Render are to be designed in accordance with NZS 3604:1999 or be designed and approved by a structural engineer.

1.3 Bracing

All bracing for structures must comply and be installed in accordance with the substrate manufacturers specifications.

1.4 Wind Loading

Nu-Render is suitable for use in wind zones up to and including Very High (VH) as defined in NZS 3604:1999 in terms of performance relating to external moisture and structure.

2. NU-RENDER BUILDING REGULATIONS

Nu-Render if used, designed, installed and maintained in accordance with the statements and specifications provided in this manual, will meet, or contribute to meeting the following provisions of the NZBC:

Clause B1 Structure

Performance 81.3.1, B1.3.2 and B.1.3.4 for the relevant physical conditions of B1.3.3.

Clause B2 Durability

Performance 82.3.1 (c), 5 years.

Clause C3 Spread of Fire

Performance C3.3.5

Clause E2 External Moisture

Performance E2.3.2

Clause F2 Hazardous Building Materials

Performance F2.3.1.

3. NU-RENDER DESIGN INFORMATION

Nu-Render will provide a seamless monolithic finish to the exterior of a building provided sensible design methods are followed.

As Nu-Render is installed over Clay Brick and Masonry, the installation of substrate must be in accordance with the manufacturer's specification and associated New Zealand Standards.

Handling and Storage

- Bags of plaster, coatings, and other materials or components must be kept dry and protected from damage, preferably stored off the floor on timber pallets or dunnage.
- Bags of Plaster must be used within the designated shelf life of six months from date of manufacture.

4. NU-RENDER UPVC COMPONENT RANGE

uPVC Control Joint (CONTROL 6)

As the Nu-Render system is applied over Clay Brick and Masonry, the substrate manufacturers specifications and the relevant New Zealand Standards must be followed for control joint locations.

These control joints are installed to allow controlled movement of the cladding by allowing the rubber centre section of the control joint to flex laterally reducing surface cracking of the plaster.

Meshed Corner Bead

This component is installed at all external corner locations and the jambs of windows and doors to provide additional reinforcing and durability at these high risk impact points.

The meshed corner bead is adhered to the substrate using an appropriate Construction Adhesive; the meshed corner bead is totally encapsulated in the Nu-Render Application once the Leveling coat has been applied.

Render Stop

This 7mm component is installed at locations where the plaster coating system must terminate. The uPVC component is adhered to the substrate using an suitable BRANZ Appraised Construction Adhesive and utilizes punchings in the heel of the component, allowing for the Thin Bed Render leveling coat to adhere to the substrate and the component locking it in place.

Note: Text in brackets following component name refer to order description. Utilise these component descriptions for ordering purposes.

5. NU-RENDER SYSTEM SPECIFICATIONS

5.1 Plasters

Leveling Coat of Granosite / Nu-Age Thin Bed Render or Adhesive Mortar Coarse

A Polymer modified Portland Cement-based plaster, comprising of coarse grade sands, adhesives and additional additives, supplied in 25kg bags. Granosite / Nu-Age Thin Bed Render or Adhesive Mortar Coarse can be trowel applied but for optimum results Watty! Granosite / Nu-Age Plaster recommends pump application to a thickness of 3-5mm.

Intermediate Coat of Granosite / Nu-Age Skim Coat

Granosite / Nu-Age Skim Coat is a sand and cement-based plaster, supplied in 25 kg bags. It can be trowel applied but preferably spray applied in a 1-2mm mm thick coat. This provides a smooth, even plaster surface to take the finishing plaster coat.

Finishing Coat of Granosite / Nu-Age Adobe Finish

Granosite / Nu-Age Adobe Finish is sand, cement and lime based plaster, supplied in 25 kg bags. It is trowel applied to give a sculptured finish 3-5 mm in thickness.

Finishing Coat of Granosite / Nu-Age Sponge Finish

Granosite / Nu-Age Sponge Finish is sand, cement and lime based plaster, supplied in 25 kg bags. It is trowel or spray applied to a thickness of 1-2mm

Finishing Coat of Acrylic Texture

See Watty! Granosite Paintworks Specification Manual.

5.2 Flexible Sealant

A suitable BRANZ Appraised flexible sealant must be used to seal openings etc, as and where required as stated in the substrate manufacturer's specifications and Watty! Granosite / Nu-Age Plaster Technical Manual.

5.3 Windows and Doors

The installation and flashing of windows, doors and all openings/penetrations in the substrate in which the Nu-Render Application is installed is the responsibility of the designer and/or the substrate manufacturer.

5.4 Weather Protective Paint Coating

See Watty! Granosite Paintworks Specification Manual.

Application must be carried out in accordance with the Watty! Granosite / Nu-Age Plaster specifications and instructions and must meet the performance requirements of the NZBC.

5.5 System Characteristics

The Nu-Render Cladding Solution has been designed to provide a monolithic coating to Clay Brick and Masonry. The thickness of the Nu-render system does not allow for straightening of the substrate and tolerances in the substrate will be reflected in the finished system. For areas where substrate tolerances are great, use Watty! Granosite / Nu-Age Nu-Solid Cladding Solution.

6. INSTALLATION INSTRUCTIONS

6.1 Substrate

See manufacturer's documentation for installation instructions.

6.2 Flashings

Control Joints

- Control joint locations to be specified by substrate manufacturer. Control joints must be adhered to the substrate using a suitable BRANZ Appraised Construction Adhesive, Granosite / Nu-Age Thin Bed Render or Adhesive Mortar Coarse Leveling Coat is then applied over the 'wings' of the component to lock it in place.
- These components are set to protrude the required plaster thickness allowing the plaster to butt up to either side of the control joint providing a controlled break in the Nu-Render Cladding Solution. These components may be painted upon completion of the plaster application.

6.3 Window flashings

- To be detailed and specified by designer

6.4 Meshed Corner Beads

- Meshed corner beads are positioned on external corners and at all jamb locations on doors and window openings to provide additional reinforcement of the plaster at these high risk impact points.
- The beads are cut to length and adhered to the external corner on top of the substrate using a suitable BRANZ Appraised Construction Adhesive, Granosite / Nu-Age Thin Bed render or Adhesive Mortar Coarse is then applied by dabbing the product through the bead and onto the wall approximately 100mm down from the top of the bead and 500mm thereafter to hold the bead in place. (The Granosite / Nu-Age Thin Bed Render or Adhesive Mortar Coarse leveling coat is applied over the entire meshed portions during plastering)
- Meshed corner beads are set to protrude 5mm from adjacent wall planes and give the applicator screed guides for the leveling coat.

6.5 Plaster

Preparation Prior to Application of Plaster

- All external corners and recessed window and door jambs must be reinforced with Meshed corner beads.
- Wall plane should be checked with a straight edge and should comply with the tolerances set out in the substrate manufacturer's specifications.
- Ensure all window and door joinery is wiped clean with a primer or cleaning agent as recommended by the sealant manufacturer prior to sealant application.
- Masking tape must be used to protect all joinery, soffit linings, guttering roofs etc which may be subject to splashing and overspray.
- The surface of the substrate must be free of dust, laitance, release oils and soil prior to the application of plaster.
- Any protrusions/boils of concrete/mortar etc must be removed from substrate prior to plaster application.

Note:

Plastering should not take place when outside temperatures are or are considered to be within the next 24 hours outside the temperature range of 5-35°C.

Mixing of Plaster

- Granosite / Nu-Age Plaster bagged products are supplied in 25kg bags and must be mixed with clean fresh water.
- Mixing, if by hand must be carried out in accordance with NZS 4251 Clause 2.4.3.4 however machine mixing is recommended to produce a more consistent quality mix.
- Mixing must be carried out in accordance with the instructions on the back of each bag, together with those of the mixing machine manufacturer.
- All tools and mixing equipment to be washed cleaned frequently.

Application of Plaster — General

Application must be carried out by a Watty Granosite / Nu-Age Plaster Trained Applicator to qualify for the 10 year Manufacturers Warrantee.

- Application must be carried out in accordance with the instruction on the back of each bag. All Granosite / Nu-Age plasters may be trowel applied but machine application is recommended to give better quality results.
- Any plaster not used within one hour of mixing must be discarded.
- Plaster must be applied only if the air temperature is between 5°C and 35°C at the time of application and is likely to remain so for the 24 hours following the application. Plaster should be applied on the shady side of the building following the path of the sun. If this is not possible shade cloths must be used.
- Plaster surfaces must be protected from rain and hot drying winds for at Least 24 hours following application.
- Each plaster coat must be cured in accordance with the instructions on the back of each bag, prior to the application of the next plaster coat. A controlled rate of drying is required to prevent cracking of the plaster.
- Following the commencement of plaster application it is essential that no vibration (e.g. nailing of internal linings) be permitted to the substrates supporting the plaster until at least seven days following application of the plaster.

Levelling Coat of Granosite / Nu-Age Thin Bed Render or Adhesive Mortar Coarse

- The Granosite / Nu-Age Thin Bed Render or Adhesive Mortar Coarse Leveling coat is applied directly onto the substrate (preferably pumped) then screeded using an 'H' aluminium straight edge 1.2-2m long to a thickness of 3-5mm.
- Using the Meshed Corner beads as a guide to achieve correct thickness, high spots in the Granosite / Nu-Age Thin Bed Render or Adhesive Mortar Coarse leveling coat can be 'cut back' with a trapezium, checking for straightness horizontally and vertically.
- One 25kg bag of Granosite / Nu-Age Thin Bed Render or Adhesive Mortar Coarse will cover an area of approximately 3-4msq. at a thickness of 5mm.
- Granosite / Nu-Age Thin Bed Render or Adhesive Mortar Coarse must be protected from rain for the first 24 hours and from hot drying winds and direct sun for the first 16 hours to aid curing.
- Follow instructions on back of the bag for curing times.

Granosite / Nu-Age Skim Coat Intermediate Coat

- Granosite / Nu-Age Skim Coat is applied approximately 1-2mm thick over the Granosite / Nu-Age Thin Bed Render or Adhesive Mortar Coarse leveling coat.
- It is then ruled to give a fine smooth surface ready to apply either a Sponge, Adobe or Acrylic Texture.
- A 25 kg bag of Granosite / Nu-Age Skim Coat at a thickness of 1-2mm will cover approximately 8-10msq.
- Granosite / Nu-Age Skim Coat must be protected from rain for the first 24 hours and from hot drying winds and direct sun for the first 16 hours to aid curing.

Finishing Coats

These consist of:

- Granosite / Nu-Age 1mm Sponge Finish
- Granosite / Nu-Age 2mm Sponge Finish
- Granosite / Nu-Age Adobe Finish
- Granosite Acrylic Textures

Applying Granosite / Nu-Age 1mm Sponge Finish

- This is done by applying the plaster over a determined set area.
- The plaster is lightly troweled tight to the wall.
- A hard plastic float is then used to achieve a random or drag finish
- Alternatively a sponge can be used to finish the wall.
- A 25 kg bag of Granosite / Nu-Age 1mm Sponge Finish at a thickness of 1-2mm will cover approximately 8-10msq.

Applying Granosite / Nu-Age 2mm Sponge Finish

- This is done by applying the plaster over a determined set area.
- The plaster is lightly troweled tight to the wall.
- A sponge is then used to achieve a textured, sandy finish.
- A 25 kg bag of Granosite / Nu-Age 2mm Sponge Finish at a thickness of 2-3mm will cover approximately 6-7msq.
- All finishes must be protected from rain for the first 24 hours and from hot drying winds and direct sun for the first 16 hours to aid curing.
- Follow instructions on back of the bag for curing times.

Applying Granosite / Nu-Age Adobe Finish

- Granosite / Nu-Age Adobe finish is applied over Granosite / Nu-Age Skim Coat and used to create a variety of sculptured finishes. Application can be done by two methods.

The first method:

- By applying the Granosite / Nu-Age Adobe over a determined set area at 3-5mm.
- Then a trowel is used to create a sculptured trowel finish.

The second method:

- Utilise the same procedure as above, then use a sponge to create a textured sandy effect.
- A 25 kg bag of Granosite / Nu-Age Adobe at a thickness of 3-5mm will cover approximately 3-4msq.
- All finishes must be protected from rain for the first 24 hours and from hot drying winds and direct sun for the first 16 hours to aid curing.
- Follow instructions on back of the bag for curing times.

Applying Acrylic Textures

See Watty! Granosite Paintworks Specification Manual.

6.6 Health and Safety

Watty! Granosite / Nu-Age Plaster requires the use of safety gear and accessories while installing the plaster system. The use of breather type devices containing filters to limit small particles from being inhaled is recommended. Wash excess plaster powder from skin with soap and water. Keep out of reach of children. Seek medical advice if plaster is ingested.

6.7 Maintenance

- Inspections of the complete cladding surface should be carried out every six months.
- Any cracks or damaged areas, including flashings, beads and seals which have deteriorated, must be repaired immediately.
- Any damage to the substrate must be repaired in accordance with the substrate manufacturer's instructions, followed by re-plastering and repainting as per the original installation.
- The weather-protective paint system/Acrylic Texture will need to be maintained as per Watty Granosite / Nu-Age Paintworks Specification.

7. AREAS WHERE ADDITIONAL CARE IS REQUIRED

7.1 Intersection with other claddings

- Special care is required at junctions with other claddings. The accurate design of these junctions is critical to prohibit water from entering the building envelope. These details are the responsibility of the building designer.

7.3 Damage to cladding system

- Any damage or cracking of the cladding system (including the protective paint coating/Acrylic Texture) will require immediate attention and repair in order to prohibit water entry – Contact Watty Granosite / Nu-Age Plaster for repair.

7.4 Penetrations

- Any pipe, electrical or other penetrations must be sealed in a conduit pipe to protect and seal penetrations through the cladding.

7.5 Ground clearances

- Installed over Clay Brick and Masonry, the bottom edge of the Nu-Render system should be kept clear of ground level by 50mm with the installation of a uPVC Render Stop or alternatively an aluminium 'Z' flashing at this point.
- The ground clearances to finished floor levels as set out in NZS 3604 must be adhered to at all times.

7.6 Substrate curing times

- See substrate manufacturer's specifications for the required curing times for mortar joints etc.
- Allow sufficient time after laying of substrate before applying force as per substrate manufacturers specifications i.e. Ladders etc.

7.7 Cavity Ventilation

Watty Granosite / Nu-Age Plaster recommends the use of proprietary vents at the required locations to provide consistent clean openings for the purpose of ventilating Brick cavities. These vents are installed during the substrate laying and are set to protrude the required finished plaster thickness. These units are the responsibility of the substrate manufacturers and/or substrate installers.

7.8 Substrate Movement

The Watty Granosite / Nu-Age Plaster Nu-Render system can only provide monolithic aesthetics over Clay Brick and Masonry, substrate movement such as cracking of mortar joints, wall movement and settling of the building will cause undue stress on the Nu-Render system. Watty Granosite / Nu-Age Plaster cannot be held liable for cracking or damage of the Nu-Render system caused by substrate movement.