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 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 Nu-Age Plaster and we'll guarantee 'your peace of mind'

System Description

The Nu-solid cladding solution is a plaster cladding system applied directly over masonry, brick, concrete panel, autoclaved panel or block substrate. A 10mm base coat of polymer modified Portland cement-based plaster is applied to the substrate followed by a 2-3mm coat of Skim Coat. It is then finished with a 2-5mm finishing coat, providing either a grit finish or undulating Adobe finish.

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

An acrylic-based exterior paint system is required over the Nu-solid finishing plasters to ensure weather tightness and give the desired finish colour.

Nusolid™
Cladding Solution

CONTENTS

Nusolid™
Cladding Solution

INDEX OF DETAILS

1. SCOPE AND LIMITATIONS OF NU-SOLID

1.1. Scope

Nu-solid 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 Nu-Age Plaster Ltd approved 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-solid 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 with NZS 3604:1999 or be designed and approved by structural engineer.

1.4 Wind Loading

Nu-solid 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-SOLID BUILDING REGULATIONS

Nu-Solid 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 B1.3.1, B1.3.2 and B.1.3.4 for the relevant physical conditions of B1.3.3.

Clause B2 Durability
Performance B2.3.1 (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-SOLID DESIGN INFORMATION

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

As Nu-solid is installed over masonry, brick, concrete panel, autoclaved panel or block substrate, the substrate manufacturers instructions must be followed.

3.1 Large wall areas

Avoid large expanses of unbroken exterior wall. Windows, doors and feature components can be incorporated to hide imperfections, which will create a better finish.

3.2 Large eaves and projecting trim

The addition of eaves dramatically reduces the effects on a buildings elements from sun, wind and rain which can contribute to damage of the exterior cladding. Protection of openings and intersections is recommended by Nu-Age Plaster to extend the lifespan of the cladding and to reduce the maintenance requirements of the cladding at these points.

3.3 Timber Framing - General

- Timber wall framing must be treated as required by NZS 3602 and B2/AS1.
- Studs must be at a maximum 600 mm centres.
- Dwangs/nogs must be at maximum 800 mm centres.
- All new timber framing must comply with NZS 3604: 1999 Timber Framed Buildings or be to a specific structural design.
- Timber framing must have a moisture content of no more than 24% at the time of application of the plaster.
- Wall framing behind battens where substrate sheets are joined must be nominal 50 mm thickness (i.e. 45 mm minimum finished thickness).

3.4 Tolerances

In order to achieve an acceptable wall finish, it is imperative that framing is straight and true. Framing tolerances must comply with the requirements of NZS 3604:1999 Timber Framed Buildings.

3.5 Control Joints

- Horizontal and vertical control joints must be located over structural supports.
- Control joints in walls clad with Nu-solid must be provided at centres as per substrate manufacturers specifications, aligned with any control joint in the structural framing, where building frame movement is likely, or where the system abuts other construction.

3.6 Sloping Surfaces

The slope of surfaces such as sills and parapets must be a minimum of 15° from the horizontal. Tops of sills, parapets and balustrades that are more than 250 mm wide must have a minimum 30° slope.

3.7 Electrical Cables

Cables penetrating the cladding system must be installed in conduits or ducts to ensure that any PVC sheathing does not come in contact with the cladding system.

3.8 Fire Protection

As per NZBC Clause C3 Spread of Fire. Performance C3.3.5 See Section 9

3.9 Insulation

The Nu-solid system alone does not meet NZBC Acceptable Solution E3/AS1. Additional wall insulation must be added as specified in the following table.

Climate Zone	Wall R-Value Requirement	Cavity Insulation Requirement
1 and 2	1.5msq.°C/W	R1.8 Fibreglass batts
3	1.9msq.°C/W	R2.2 Fibreglass batts

Alternatively, a specific thermal design may be carried out.

3.10 Impact Resistance

• Nu-solid has adequate resistance to hard and soft body impacts likely to occur in normal residential or light commercial use.

• The likelihood of impact damage to the product when used in commercial situations must be considered at the design stage, and appropriate protection such as bollards or barriers provided in vulnerable areas.

3.11 Minimum ground clearances

• Installed over Masonry, the bottom edge of the Nu-solid system should be kept clear of ground level by 50mm with the installation of an aluminium 'Z' flashing at this point. Alternatively the Nu-Solid system may be run below finished ground level.

• Installed over Autoclaved concrete the Nu-solid system must remain minimum 100mm above paved surfaces and 175mm above grass, garden etc.

• The ground clearances to finished floor levels as set out in NZS 3604 must be adhered to at all times.

• At balcony, deck or low pitch roof/wall junctions, the bottom edge of the Nu-solid system (installed over Autoclaved Concrete must be kept clear of any adjacent surface, or above the top surface of any adjacent roof flashing by a minimum of 50 mm. If installed over Masonry an aluminium apron flashing must be installed. See drawings 5 and 6 of the Nu-solid Technical Manual.

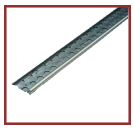
3.12 Handling and Storage

• 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 Nu-Age Plaster must be used within the designated shelf life of six months from date of manufacture.

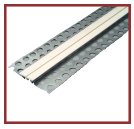
4. NU-SOLID UPVC COMPONENT RANGE

Metal Starter Strips (STARTER 14)



Nu-Age Plaster incorporates Nu-solid Starter Strips into their Nu-solid system. These flashings are located at the base of the wall and provide a stop end to the plaster coats. Also this component incorporates an angled base to create a drip edge. This component sits on top of the substrate and is adhered onto the substrate with Adhesive Mortar or Liteweight Plaster.

Metal Control Joint(CONTROL 11)



As the Nu-solid system is installed over masonry, brick, concrete panel, autoclaved panel or block substrate the manufacturers specifications and the relevant New Zealand Standards must be followed for control joint locations. These control joints allow for shrinkage of the framing, expansion and contraction of the cladding substrate. These control joints are put in place 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.

Widra S.S Corner Bead

This stainless steel component sits on top of the substrate at external corner positions and around windows, the beads reinforce the plaster at these points from impact damage. The bead is adhered to the external corner with Adhesive Mortar or Liteweight plaster and is set at 10mm allowing applicators to finish the Modified Render levelling coat against the ribs while providing a straight edge to the corner.

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

5. NU-SOLID SYSTEM SPECIFICATIONS

5.1 Plasters

Levelling Coat of Modified Render

A Polymer modified Portland Cement-based plaster, comprising of coarse sand, polypropylene fibres, and adhesives, supplied in 25kg bags. Modified Render can be trowel applied but for optimum results Nu-Age Plaster recommends pump application of a 10mm base coat of the product.

Intermediate Coat of Skim Coat

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 2-3 mm thick layer. This provides a smooth, even plaster surface to take the finishing plaster coat.

Finishing Coat of Adobe Finish

Adobe Finish is a 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 Sponge Finish

Sponge Finish is a sand, cement and lime based plaster, supplied in 25 kg bags. It is trowel or spray-applied to a thickness of 2-3 mm.

5.2 Flexible Sealant

BRANZ Appraised flexible sealants must be used to seal control joints and openings, as and where required and stated in Nu-Age Plaster Technical Manuals.

5.3 Window and Door Trim Cavity Airseals

BRANZ Appraised self expanding, moisture cure polyurethane foam airseals suitable for this use must be used to create airseals at the interior face of the window and door joinery trim cavity.

5.4 Weather Protective Paint Coat

See Nu-Age Plaster Paint Specification Sheet

Application must be carried out in accordance with the paint manufacturer's instructions and must meet the performance requirements of the NZBC.

6. INSTALLATION INSTRUCTIONS

6.1 Substrate

See manufacturer's documentation for installation instructions.

6.2 Flashings

Metal Starter Strip

- The metal Starter Strip is installed onto the face of the substrate at the base of the wall with its lowest point min. 50mm below finished floor level and adhered to the substrate using adhesive mortar or Liteweight plaster.
- If installed over autoclaved concrete height from finished ground level is to comply with NZS 3604:1999

Control Joints

- Control joint locations to be specified by substrate manufacturer. Control joints must be adhered to the substrate using liteweight plaster, adhesive mortar or appropriate adhesive.
- 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 plaster system. These components may be painted upon completion of the plaster application.

6.3 Window flashings

- To be specified by designer

6.4 Stainless Steel Corner Beads

- Widra Stainless Steel corner beads are positioned on external corners to provide additional reinforcing 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 Liteweight plaster or Adhesive Mortar by dabbing the product through the bead and onto the wall approximately 100mm down from the top of the bead and 500mm thereafter.
- Widra corner beads are set to protrude 10mm from adjacent wall planes and give the applicator screed guides for the levelling coat.

6.5 Plaster

Preparation Prior to Application of Plaster

- All external corners, recessed windows and doors external corners must be reinforced with Widra Stainless Steel corner beads.
- Wall plane should be checked with a straight edge and should comply with the tolerances set out in clause 3.4 of this document.
- All uPVC flashings (if relevant) should be coated with flashing primer/key coat.
- All external joinery must be fixed in place with flashings installed and sealant applied to all intersections where required and air seals installed around windows.
- 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 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

- Nu-Age Plaster 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 Nu-Age Plaster Approved Applicator to qualify for the 15 year Manufacturers Warrantee.

- Application must be carried out in accordance with the instruction on the back of each bag. All Nu-solid 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 5ºC and 35ºC 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.

Application of Plaster – General (continued)

- 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 Modified Render

- The Modified Render Levelling 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 11-12mm. Applying the Modified Render levelling coat thicker than screed guides gives you a surface to cut back into a flat plane.
- Cutting back of the plaster can be done after sufficient drying has taken place using an aluminium trapeze edge 1.5-2m long.
- Carefully expose the stainless steel corner beads (or screed rails) using a grid plane then lightly run the grid plane over wall area taking care not to dig holes in fresh plaster. Complete the levelling with a trapezium, straight edge checking for straightness horizontally and vertically.
- One 25kg bag of Modified Render will cover an area of approximately 1.5msq. at a thickness of 10mm.
- Modified Render 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.

Skim Coat Intermediate Coat

- Skim Coat is applied approximately 2-3mm thick over the Modified Render coat.
- It is then ruled to give a fine smooth finish which can be left as a finish or a sponge or adobe finish may be placed over top.
- A 25 kg bag of Skim Coat at a thickness of 2-3mm will cover approximately 8msq.
- 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:

- 1mm Finish
- 2mm Finish
- Adobe Finish

Applying 1mm finish

- This is done by applying the plaster over a determined set area.
- The plaster is lightly trowelled 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 1mm Sponge Finish at a thickness of 2-3mm will cover approximately 10msq.

Applying 2mm Finish

- This is done by applying the plaster over a determined set area.
- The plaster is lightly trowelled tight to the wall.
- A sponge is then used to achieve a textured, sandy finish.
- A 25 kg bag of 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 Adobe Finish

- Adobe finish is applied over Skim Coat and used to create a variety of sculptured finishes.

Application can be done by two methods.

The first method:

• By applying the 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 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.

6.6 Health and Safety

Nu-Age Plaster requires the use of safety gear and accessories while installing 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 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.
- Regular washing of the paint coating every six months is recommended. This should be carried out with a mild detergent to maintain the life and appearance of the weather-protective paint system.
- The weather-protective paint system will need to be re-applied as per manufacturer's specification. For exposed locations re-painting may be required more frequently.

7. AREAS WHERE ADDITIONAL CARE IS REQUIRED

7.1 Parapets/Balustrades

- Parapets and balustrades must be protected with a metal parapet cap fixed through the sides. The metal parapet cap must provide min. 50mm cover down sides for low and medium wind zones and min. 70mm for high and very high wind zones.

7.2 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 will require immediate attention and repair in order to prohibit water entry.
- Damage to the paint coating system will provide a point of vulnerability to the cladding system and must be repaired immediately to avoid further damage.

7.4 Penetrations

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

Paintworks Specification GS 405.1NZ

System	**Grano Adobe Finish Satin**
Substrate	**Exterior** – New and uncoated off form concrete
Category	Premium Texture – Water Based

Product Features
Grano Adobe Finish® is a high performance pre blended modified cement based texturing material designed for use over Grano Adhesive Mortar® (G1.06NZ) or Grano Modified Render® (G1.10NZ). Grano Adobe Finish allows various undulating and sculptured finishes to be achieved

Surface Preparation
Ensure all new cementitious substrates are fully cured prior to coating. Typically this may take a minimum of 4-6 weeks. There must be less than 15% moisture wood equivalent in the surface at the time of application to ensure optimum coating performance. The surface must not be subject to frequent wetting or hydrostatic pressure. Any foreign material that may affect adhesion must be removed prior to coating. Grind off any protruding formwork joints.
Patching or Skimming Imperfections: Examine surfaces closely for air holes and imperfections, fill or skim as required with a GranoPatch® Smooth (G1.04NZ), block down, allow to dry, sand back and dust off.
Rendering: Render surface with Grano Adhesive Mortar® (G1.06NZ) or Grano Modified Render® (G1.10NZ). Allow to cure 7 days.

Application Details	Data Sheet	Coverage	Film Thickness (microns) Wet	Dry	Dry Times Touch	Topcoat
First Coat: **Grano Adobe Finish** *(equipment: trowel to the desired effect)*	G1.20NZ	5.00Kg/M²	4000	-	15 min	7 days
Second Coat: **GranoPrime®** *(equipment: roller or spray)*	G1.02NZ	0.08 L/M²	80	20	2 hours	6 hours
Third & Fourth Coat: **GranoImpact®** *(equipment: roller, for spray application refer the datasheet)*	G2.01NZ	0.12 L/M²	125	60	4 hours	6 hours

Recommended Uses
For exterior and interior use.
Grano Adobe Finish may be applied to off-form concrete Class 2 (AS 1510) or equivalent, cement rendered fair-faced flush-jointed concrete block and brickwork (common, clay, concrete), tilt-up and pre-cast concrete, proprietary fibre cement boards and Autoclaved Aerated Concrete (AAC). See the appropriate system specification sheet for further details.

Additional Notes
Surface preparation is the responsibility of the Builder, Renovator or Main Contractor and the Applicator. To achieve the indicated performance, it must be carried out according to Wattyl's recommendations.
It is recommended that application be carried out by a skilled applicator, who is totally conversant with the Wattyl Granosite products and systems, to validate full material warranty conditions.

Caution
Provide adequate ventilation during use.
Application **should not** be carried out if the air temperature or the substrate temperature is below 10°C or above 35°C. The temperature must not fall below 10°C during the drying process.

Paintworks Specification GS 405.3NZ

System	Grano Adobe Finish Satin
Substrate	Exterior – New and uncoated brick & concrete block
Category	Premium Texture – Water Based

Product Features

Grano Adobe Finish® is a high performance pre blended modified cement based texturing material designed for use over Grano Adhesive Mortar® (G1.06NZ) or Grano Thin Bed Render (G1.09NZ) or Grano Skimcoat (G1.11NZ). Grano Adobe Finish allows various undulating and sculptured finishes to be achieved

Surface Preparation

Substrate must be free from dirt, dust, oil, grease, mould or any other contaminants that may affect adhesion. All scaling, efflorescence, mould, mastic compound or any other foreign material must be removed prior to painting. Remove all traces of loosely adhering material by scraping, grinding or wire brushing, etc.

The success of any system is very much dependent on the correct construction of the framing, the installation/laying, fixing of the brick and concrete block and the application of the rendering materials themselves. Wattyl recommends that it is the responsibility of the Applicator to ensure that the substrate is of an acceptable standard prior to the application of any Granosite coating system.

Surface preparation is the responsibility of the Builder, Renovator or Main Contractor and the Applicator.

Render the new and uncoated brick & concrete blocks with the Grano Nu-Render or Nu-Solid rendering system for new and uncoated brick & concrete blocks. To access the Grano Nu-Render or Nu-Solid Installation Guides, contact Wattyl (NZ) Ltd for the regional Granosite Sales Consultant's contact details.

Application Details	Data Sheet	Coverage	Film Thickness (microns) Wet	Dry	Dry Times Touch	Topcoat
First Coat: Grano Adobe Finish *(equipment: trowel to the desired effect)*	G1.20NZ	5.00Kg/M^2	4000	-	15 min	7 days
Second Coat: GranoPrime® *(equipment: roller or spray)*	G1.02NZ	0.08 L/M^2	80	20	2 hours	6 hours
Third & Fourth Coat: GranoImpact® *(equipment: roller, for spray application refer the datasheet)*	G2.01NZ	0.12 L/M^2	125	60	4 hours	6 hours

Recommended Uses	For exterior and interior use. Grano Adobe Finish may be applied to off-form concrete Class 2 (AS 1510) or equivalent, cement rendered fair-faced flush-jointed concrete block and brickwork (common, clay, concrete), tilt-up and pre-cast concrete, proprietary fibre cement boards and Autoclaved Aerated Concrete (AAC). See the appropriate system specification sheet for further details.
Additional Notes	Surface preparation is the responsibility of the Builder, Renovator or Main Contractor and the Applicator. To achieve the indicated performance, it must be carried out according to Wattyl's recommendations. It is recommended that application be carried out by a skilled applicator, who is totally conversant with the Wattyl Granosite products and systems, to validate full material warranty conditions.
Caution	Provide adequate ventilation during use. Application should not be carried out if the air temperature or the substrate temperature is below 10^{o}C or above 35^{o}C. The temperature must not fall below 10^{o}C during the drying process.

Paintworks Specification GS 425.1NZ

System	Grano Sponge Finish Satin
Substrate	Exterior – New and uncoated off form concrete
Category	Premium Texture – Water Based

Product Features

Grano Sponge Finish® is a high performance pre blended modified cement based texturing material designed for use over Grano Adhesive Mortar® (G1.06NZ) or Grano Modified Render® (G1.10NZ). Grano Sponge Finish allows sponge, floated and various finishes to be achieved

Surface Preparation

Ensure all new cementitious substrates are fully cured prior to coating. Typically this may take a minimum of 4-6 weeks. There must be less than 15% moisture wood equivalent in the surface at the time of application to ensure optimum coating performance. The surface must not be subject to frequent wetting or hydrostatic pressure. Any foreign material that may affect adhesion must be removed prior to coating. Grind off any protruding formwork joints.

Patching or Skimming Imperfections: Examine surfaces closely for air holes and imperfections, fill or skim as required with a GranoPatch® Smooth (G1.04NZ), block down, allow to dry, sand back and dust off.

Rendering: Render the new and uncoated brick & concrete blocks with the Grano Nu-Render or Nu-Solid rendering system for new and uncoated off form concrete . To access the Grano Nu-Render or Nu-Solid Installation Guides, contact Wattyl (NZ) Ltd for the regional Granosite Sales Consultant's contact details.

Application Details	Data Sheet	Coverage	Film Thickness (microns) Wet	Dry	Dry Times Touch	Topcoat
First Coat:						
Grano Sponge Finish *(equipment: sponge, float, trowel to the desired effect)*	G1.25NZ	3.00Kg/M^2	2000	-	15 min	7 days
Second Coat:						
GranoPrime® *(equipment: roller or spray)*	G1.02NZ	0.08 L/M^2	80	20	2 hours	6 hours
Third & Fourth Coat:						
GranoImpact® *(equipment: roller, for spray application refer the datasheet)*	G2.01NZ	0.12 L/M^2	125	60	4 hours	6 hours

Recommended Uses	For exterior and interior use. Grano Sponge Finish may be applied to off-form concrete Class 2 (AS 1510) or equivalent, cement rendered fair-faced flush-jointed concrete block and brickwork (common, clay, concrete), tilt-up and pre-cast concrete, proprietary fibre cement boards and Autoclaved Aerated Concrete (AAC). See the appropriate system specification sheet for further details.
Additional Notes	Surface preparation is the responsibility of the Builder, Renovator or Main Contractor and the Applicator. To achieve the indicated performance, it must be carried out according to Wattyl's recommendations. It is recommended that application be carried out by a skilled applicator, who is totally conversant with the Wattyl Granosite products and systems, to validate full material
Caution	Provide adequate ventilation during use. Application should not be carried out if the air temperature or the substrate temperature is below 10^{o}C or above 35^{o}C. The temperature must not fall below 10^{o}C during the drying process.

Paintworks Specification GS 425.3NZ

System	Grano Sponge Finish Satin
Substrate	Exterior – New and uncoated brick & concrete block
Category	Premium Texture – Water Based

Product Features

Grano Sponge Finish® is a high performance pre blended modified cement based texturing material designed for use Grano Adhesive Mortar® (G1.06NZ) or Grano Thin Bed Render (G1.09NZ). Grano Sponge Finish allows sponge, floated and various finishes to be achieved

Surface Preparation

Substrate must be free from dirt, dust, oil, grease, mould or any other contaminants that may affect adhesion. All scaling, efflorescence, mould, mastic compound or any other foreign material must be removed prior to painting. Remove all traces of loosely adhering material by scraping, grinding or wire brushing, etc.

The success of any system is very much dependent on the correct construction of the framing, the installation/laying, fixing of the brick and concrete block and the application of the rendering materials themselves. Wattyl recommends that it is the responsibility of the Applicator to ensure that the substrate is of an acceptable standard prior to the application of any Granosite coating system.

Surface preparation is the responsibility of the Builder, Renovator or Main Contractor and the Applicator.

Render the new and uncoated brick & concrete blocks with the Grano Nu-Render or Nu-Solid rendering system for new and uncoated brick & concrete blocks. To access the Grano Nu-Render or Nu-Solid Installation Guides, contact Wattyl (NZ) Ltd for the regional Granosite Sales Consultant's contact details.

Application Details	Data Sheet	Coverage	Film Thickness (microns) Wet	Dry	Dry Times Touch	Topcoat
First Coat: Grano Sponge Finish *(equipment: trowel to the desired effect)*	G1.25NZ	3.00Kg/M^2	2000	-	15 min	7 days
Second Coat: GranoPrime® *(equipment: roller or spray)*	G1.02NZ	0.08 L/M^2	80	20	2 hours	6 hours
Third & Fourth Coat: GranoImpact® *(equipment: roller, for spray application refer the datasheet)*	G2.01NZ	0.12 L/M^2	125	60	4 hours	6 hours

Recommended Uses

For exterior and interior use.

Grano Sponge Finish may be applied to off-form concrete Class 2 (AS 1510) or equivalent, cement rendered fair-faced flush-jointed concrete block and brickwork (common, clay, concrete), tilt-up and pre-cast concrete, proprietary fibre cement boards and Autoclaved Aerated Concrete (AAC). See the appropriate system specification sheet for further details.

Additional Notes

Surface preparation is the responsibility of the Builder, Renovator or Main Contractor and the Applicator. To achieve the indicated performance, it must be carried out according to Wattyl's recommendations.

It is recommended that application be carried out by a skilled applicator, who is totally conversant with the Wattyl Granosite products and systems, to validate full material warranty conditions.

Caution

Provide adequate ventilation during use.

Application **should not** be carried out if the air temperature or the substrate temperature is below 10^{o}C or above 35^{o}C. The temperature must not fall below 10^{o}C during the drying process.

Grano Modified Render® formerly GranoRender

Resource Code 849542
July 2004

DESCRIPTION

- Grano Modified Render® is a high quality pre-blended, cementitious rendering and screeding material specifically designed for rendering in one application of more than 10mm.

PRINCIPAL CHARACTERISTICS

- Suitable for interior or exterior use.
- Applies with exceptional ease to provide a base coat for finishing plasters.
- Can be applied between 10-12mm thicknesses in one application.
- Superior application and adhesion properties when compared to conventional sand and cement render.
- Easy to apply and being pumpable can offer economies in time and labour.

COLOURS AND GLOSS

- Grey

BASIC DATA AT 25°C

- **Surface Dry** Four (4) hours.
- **Recoat** Twenty four (24) hours, if required
- **Fully Cured** Seven (7) days
  All figures are quoted at 25°C and 50% Relative Humidity. Drying will take longer at lower temperatures or higher relative humidity.
- **Consistency** Dry powder
- **Texture** Grainy
- **Pot-Life** Fifteen (15) minutes when mixed
- **Coverage per coat** 16.00Kg/M^2 per 10mm film thickness
- **Clean-up** Thoroughly clean equipment with water.
- **Weatherability** Excellent
- **Abrasion Resistance** Excellent

RECOMMENDED SUBSTRATE CONDITIONS AND TEMPERATURE

- Grano Modified Render® is suitable for application to Autoclaved Aerated Concrete (AAC) blocks or panels, off-form concrete and any other fair-faced, flush and straight laid concrete block or brickwork (common, clay).
- Surface Preparation is the responsibility of the Builder, Renovator or Main Contractor and the Applicator. To achieve the indicated performance, application must be carried out according to Wattyl's recommendations.
- Ensure the surface is clean and dry. All substrates must be free of dirt, grease, oil, mould, release agents, bondbreakers or any other contaminants that may interfere with adhesion. There must be less than 15% moisture Wood Equivalent in the surface at the time of coating to ensure optimum coating performance.
- **Note:** Porous substrates **must** be sealed with GranoSeal® (G1.14NZ) reduced 1:1 with water. Apply by roller or spray at 0.12 L/M^2 (8.3M^2/L) allow to dry 2-6 hours **prior** to applying Grano Modified Render®.
- Application **should not** be carried out if the air temperature or the substrate temperature is below 5°C or above 35°C.
- Freshly applied material must be protected from frosts and rain for a minimum of forty eight (48) hours.
- Not suitable for walk on surfaces.

INSTRUCTIONS FOR USE

- Mix one (1) 25 kg bag of Grano Modified Render® to approximately 4.0 litres of water. Add the powder to the water steadily and mix with a power stirrer until it is smooth and lump free. Grano Modified Render® has a pot-life of fifteen (15) minutes when mixed.
- Trowel or pump one (1) coat of Grano Modified Render® @ 16.00Kg/M^2 per 10mm film thickness. Allow 24 hours to dry.

INSTRUCTIONS FOR USE - Continued

Curing

- Keep damp for the first 12 hours to ensure full curing strength is developed. This is critical in windy conditions or when humidity is low.
- Allow to fully cure for 7 days or when moisture content is no greater that 15% wood equivalent before topcoating.

SAFETY DATA

- **Caution** — Provide adequate ventilation during use.
  Avoid inhalation of the powder, prolonged skin contact and particularly eye contact. Wear protective clothing to minimise skin contact and wear goggles where splatter is likely.
- **Spills and Disposal** — Do not allow spilt material to enter drains or other watercourses. Sweep up and dispose of waste In sealed containers to minimise dust. Disposal of waste is subject to statutory control. Consult your local authority for disposal guidelines.
- **M.S.D.S.** — A Material Safety Data Sheet (M.S.D.S.) is available on request.
- **First Aid**
  If swallowed **do not** induce vomiting. Give plenty of water to drink. Contact a doctor or the Poisons Information Centre. Phone 0800 764766 (New Zealand).
  If in eyes, hold eyes open and flood with water for at least 15 minutes. Contact a doctor if any irritation occurs.
  If on skin remove contaminated clothing, wash skin thoroughly with soap and water or a proprietary skin cleanser. Do not use solvents.
  If affected by inhalation remove person to fresh air. If breathing difficulties persist or occur later, contact a doctor.

ADDITIONAL DATA

- Available in 25 kg bags.
- Bags must be dry during transport and storage.
- Bags must not be exposed to moisture, excessive heat or cold.
- Shelf Life: Six (6) months, if stored appropriately. This must include storage under cover, above ground, away from direct heat and moisture.
- It is recommended that application be carried out by a skilled applicator, who is totally conversant with the Granosite products and systems, to validate full material warranty conditions.
- For further information, contact the Wattyl Information Helpline. Phone 0800 735551 (New Zealand).

GRANORENDER® IS A SURFACE PREPARATION PRODUCT AND IS USED IN CONJUNCTION WITH VARIOUS GRANOSITE SYSTEMS. AS SUCH IT IS NOT A SYSTEM IN ITSELF AND SHOULD ONLY BE USED WHERE SPECIFIED.

Grano Skim Coat

DESCRIPTION

- Grano Skim Coat is a high quality pre-blended, cementitious rendering and screeding material specifically designed for finishing rendering of the base coat prior to application of Sponge or Adobe Finish.

PRINCIPAL CHARACTERISTICS

- Suitable for interior or exterior use.
- Applies with exceptional ease to provide a base coat for finishing plasters.
- Can be applied between 2-4mm thicknesses in one application.
- Superior application and adhesion properties when compared to conventional sand and cement render.
- Easy to apply and being pumpable can offer economies in time and labour.

COLOURS AND GLOSS

- Grey

BASIC DATA AT 25°C

- Surface Dry — Four (4) hours.
- Recoat — Twenty four (24) hours, if required
- Fully Cured — Seven (7) days
  All figures are quoted at 25°C and 50% Relative Humidity. Drying will take longer at lower temperatures or higher relative humidity.
- Consistency — Dry powder
- Texture — Grainy
- Pot-Life — Fifteen (15) minutes when mixed
- Coverage per coat — 7 Kg/M^2 per 3mm film thickness
- Clean-up — Thoroughly clean equipment with water.
- Weatherability — Excellent
- Abrasion Resistance — Excellent

RECOMMENDED SUBSTRATE CONDITIONS AND TEMPERATURE

- Grano Skim Coat is suitable for application to Grano Adhesive Mortar, Grano Modified Render or Grano Lite-weight Plaster.
- Surface Preparation is the responsibility of the Builder, Renovator or Main Contractor and the Applicator. To achieve the indicated performance, application must be carried out according to Wattyl's recommendations.
- Ensure the surface is clean and dry. All substrates must be free of dirt, grease, oil, mould, release agents, bondbreakers or any other contaminants that may interfere with adhesion. There must be less than 15% moisture Wood Equivalent in the surface at the time of coating to ensure optimum coating performance.
- Application should not be carried out if the air temperature or the substrate temperature is below 5°C or above 35°C.
- Freshly applied material must be protected from frosts and rain for a minimum of forty eight (48) hours.
- Not suitable for walk on surfaces.

INSTRUCTIONS FOR USE

- Mix one (1) 25 kg bag of Grano Skim Coat to approximately 4.0 litres of water. Add the powder to the water steadily and mix with a power stirrer until it is smooth and lump free. Grano Skim Coat has a pot-life of fifteen (15) minutes when mixed.
- Trowel or pump one (1) coat of Grano Skim Coat @ Kg/M^2 per 3mm film thickness. Allow 24 hours to dry.

INSTRUCTIONS FOR USE - Continued

Curing

- Keep damp for the first 12 hours to ensure full curing strength is developed. This is critical in windy conditions or when humidity is low.
- Allow to fully cure for 7 days or when moisture content is no greater that 15% wood equivalent before topcoating.

SAFETY DATA

- Caution — Provide adequate ventilation during use.
  Avoid inhalation of the powder, prolonged skin contact and particularly eye contact. Wear protective clothing to minimise skin contact and wear goggles where splatter is likely.
- Spills and Disposal — Do not allow spilt material to enter drains or other watercourses. Sweep up and dispose of waste In sealed containers to minimise dust. Disposal of waste is subject to statutory control. Consult your local authority for disposal guidelines.
- M.S.D.S. — A Material Safety Data Sheet (M.S.D.S.) is available on request.
- First Aid
  If swallowed do not induce vomiting. Give plenty of water to drink. Contact a doctor or the Poisons Information Centre. Phone 0800 764766 (New Zealand).
  If in eyes, hold eyes open and flood with water for at least 15 minutes. Contact a doctor if any irritation occurs.
  If on skin remove contaminated clothing, wash skin thoroughly with soap and water or a proprietary skin cleanser. Do not use solvents.
  If affected by inhalation remove person to fresh air. If breathing difficulties persist or occur later, contact a doctor.

ADDITIONAL DATA

- Available in 25 kg bags.
- Bags must be dry during transport and storage.
- Bags must not be exposed to moisture, excessive heat or cold.
- Shelf Life: Six (6) months, if stored appropriately. This must include storage under cover, above ground, away from direct heat and moisture.
- It is recommended that application be carried out by a skilled applicator, who is totally conversant with the Granosite products and systems, to validate full material warranty conditions.
- For further information, contact the Wattyl Information Helpline. Phone 0800 735551 (New Zealand).

GRANO SKIM COAT IS A SURFACE PREPARATION PRODUCT AND IS USED IN CONJUNCTION WITH VARIOUS GRANOSITE SYSTEMS. AS SUCH IT IS NOT A SYSTEM IN ITSELF AND SHOULD ONLY BE USED WHERE SPECIFIED.

Grano Sponge Finish® formerly GranoSponge

DESCRIPTION

- Grano Sponge Finish® is a high performance pre blended modified cement based texturing material designed for use over Grano Adhesive Mortar® (G1.06NZ) or Grano Modified Render® (G1.10NZ).

PRINCIPAL CHARACTERISTICS

- Suitable for interior or exterior use.
- Formulated to produce sponge, floated and various other finishes.
- Can be applied between 2-3mm thicknesses in one application.
- Easy to apply and can being pumpable can offer economies in time and labour

COLOURS AND GLOSS

- Grey

BASIC DATA AT 25°C

- **Surface Dry** 15 minutes
- **Recoat** Twenty four (24) hours, if required
- **Fully Cured** Seven (7) days
  All figures are quoted at 25°C and 50% Relative Humidity. Drying will take longer at lower temperatures or higher relative humidity.
- **Consistency** Dry powder
- **Texture** Grainy
- **Pot-Life** Two - Three (2-3) hours when mixed.
- **Coverage per coat** 3.00Kg/M^2 per 2mm film thickness
- **Clean-up** Thoroughly clean equipment with water.
- **Weatherability** Excellent
- **Abrasion Resistance** Excellent

RECOMMENDED SUBSTRATE CONDITIONS AND TEMPERATURE

- Grano Sponge Finish® is suitable for application to rendered surfaces such as Grano Adhesive Mortar® (G1.06NZ) or Grano Modified Render® (G1.10NZ).
- Surface Preparation is the responsibility of the Builder, Renovator or Main Contractor and the Applicator. To achieve the indicated performance, application must be carried out according to Wattyl's recommendations.
- Ensure the surface is clean and dry. All substrates must be free of dirt, grease, oil, mould, release agents, bondbreakers or any other contaminants that may interfere with adhesion. There must be less than 15% moisture Wood Equivalent in the surface at the time of coating to ensure optimum coating performance.
- Application **should not** be carried out if the air temperature or the substrate temperature is below 5°C or above 35°C.
- Freshly applied material must be protected from frosts and rain for a minimum of forty eight (48) hours.
- Not suitable for walk on surfaces.

INSTRUCTIONS FOR USE

- Mix one (1) 25 kg bag of Grano Sponge Finish® to approximately 4.0 litres of water. Add the powder to the water steadily and mix with a power stirrer until it is smooth and lump free. Grano Sponge Finish® has a pot-life of 15 minutes when mixed.
- Trowel one (1) coat of Grano Sponge Finish ® using a stainless steel trowel at 3.00Kg/M^2 per 2mm film thickness. Allow 24 hours to dry.
- Apply an additional coat of Grano Sponge Finish ® if required.

Curing

- Keep damp for the first 12 hours to ensure full strength is developed. This is critical in windy conditions or when humidity is low.
- Allow to fully cure for 7 days or when moisture content is no greater that 15% wood equivalent before top coating.

SAFETY DATA

- **Caution** — Provide adequate ventilation during use. Avoid inhalation of the powder, prolonged skin contact and particularly eye contact. Wear protective clothing to minimise skin contact and wear goggles where splatter is likely.
- **Spills and Disposal** — Do not allow spilt material to enter drains or other watercourses. Sweep up and dispose of waste In sealed containers to minimise dust. Disposal of waste is subject to statutory control. Consult your local authority for disposal guidelines.
- **M.S.D.S.** — A Material Safety Data Sheet (M.S.D.S.) is available on request.
- **First Aid**

If swallowed **do not** induce vomiting. Give plenty of water to drink. Contact a doctor or the Poisons Information Centre. Phone 0800 764766 (New Zealand).
If in eyes, hold eyes open and flood with water for at least 15 minutes. Contact a doctor if any irritation occurs.
If on skin remove contaminated clothing, wash skin thoroughly with soap and water or a proprietary skin cleanser. Do not use solvents.
If affected by inhalation remove person to fresh air. If breathing difficulties persist or occur later, contact a doctor.

ADDITIONAL DATA

- Available in 25 kg bags.
- Bags must be kept dry during transportation and storage.
- Shelf Life: Six (6) months if stored appropriately. This must include storage under cover, above ground, away from direct heat and moisture and in well-sealed containers.
- It is recommended that application be carried out by a skilled applicator, who is totally conversant with the Granosite products and systems, to validate full material warranty conditions.
- For further information, contact the Wattyl Information Helpline. Phone 0800 735551 (New Zealand).

GRANO SPONGE FINISH® IS A SURFACE PREPARATION PRODUCT AND IS USED IN CONJUNCTION WITH VARIOUS GRANOSITE SYSTEMS. AS SUCH IT IS NOT A SYSTEM IN ITSELF AND SHOULD ONLY BE USED WHERE SPECIFIED.

Grano Adobe Finish® formerly GranoAdobe

Resource Code
July 2004

DESCRIPTION

- Grano Adobe Finish® is a high performance pre blended modified cement based texturing material designed for use over Grano Adhesive Mortar® (G1.06NZ) or Grano Modified Render® (G1.10NZ).

PRINCIPAL CHARACTERISTICS

- Suitable for interior or exterior use.
- Formulated to achieve various undulating or sculptured finishes.
- Can be applied between 3-5mm thicknesses in one application.
- Easy to apply and being pumpable can offer economies in time and labour

COLOURS AND GLOSS

- Grey

BASIC DATA AT 25°C

- **Surface Dry** 15 minutes
- **Recoat** Twenty four (24) hours, if required
- **Fully Cured** Seven (7) days
  All figures are quoted at 25°C and 50% Relative Humidity. Drying will take longer at lower temperatures or higher relative humidity.
- **Consistency** Dry powder
- **Texture** Grainy
- **Pot-Life** Fifteen (15) minutes when mixed.
- **Coverage per coat** 5.00Kg/M^2 per 4mm film thickness
- **Clean-up** Thoroughly clean equipment with water.
- **Weatherability** Excellent
- **Abrasion Resistance** Excellent

RECOMMENDED SUBSTRATE CONDITIONS AND TEMPERATURE

- Grano Adobe Finish® is suitable for application to rendered surfaces such as Grano Adhesive Mortar® (G1.06NZ) or Grano Modified Render® (G1.10NZ).
- Surface Preparation is the responsibility of the Builder, Renovator or Main Contractor and the Applicator. To achieve the indicated performance, application must be carried out according to Wattyl's recommendations.
- Ensure the surface is clean and dry. All substrates must be free of dirt, grease, oil, mould, release agents, bondbreakers or any other contaminants that may interfere with adhesion. There must be less than 15% moisture Wood Equivalent in the surface at the time of coating to ensure optimum coating performance.
- Application **should not** be carried out if the air temperature or the substrate temperature is below 5°C or above 35°C.
- Freshly applied material must be protected from frosts and rain for a minimum of forty eight (48) hours.
- Not suitable for walk on surfaces.

INSTRUCTIONS FOR USE

- Mix one (1) 25 kg bag of Grano Adobe Finish® to approximately 4.0 litres of water. Add the powder to the water steadily and mix with a power stirrer until it is smooth and lump free. Grano Adobe Finish® has a pot-life of fifteen (15) minutes when mixed.
- Trowel one (1) coat of Grano Adobe Finish ® using a stainless steel trowel at 4.00Kg/M^2 per 3mm film thickness. Allow 24 hours to dry.
- Apply an additional coat of Grano Adobe Finish ® if required.

Curing

- Keep damp for the first 12 hours to ensure full strength is developed. This is critical in windy conditions or when humidity is low.
- Allow to fully cure for 7 days or when moisture content is no greater that 15% wood equivalent before top coating.

SAFETY DATA

- **Caution** — Provide adequate ventilation during use. Avoid inhalation of the powder, prolonged skin contact and particularly eye contact. Wear protective clothing to minimise skin contact and wear goggles where splatter is likely.
- **Spills and Disposal** — Do not allow spilt material to enter drains or other watercourses. Sweep up and dispose of waste In sealed containers to minimise dust. Disposal of waste is subject to statutory control. Consult your local authority for disposal guidelines.
- **M.S.D.S.** — A Material Safety Data Sheet (M.S.D.S.) is available on request.
- **First Aid**

If swallowed **do not** induce vomiting. Give plenty of water to drink. Contact a doctor or the Poisons Information Centre. Phone 0800 764766 (New Zealand).
If in eyes, hold eyes open and flood with water for at least 15 minutes. Contact a doctor if any irritation occurs.
If on skin remove contaminated clothing, wash skin thoroughly with soap and water or a proprietary skin cleanser. Do not use solvents.
If affected by inhalation remove person to fresh air. If breathing difficulties persist or occur later, contact a doctor.

ADDITIONAL DATA

- Available in 25 kg bags.
- Bags must be kept dry during transportation and storage.
- Shelf Life: Six (6) months if stored appropriately. This must include storage under cover, above ground, away from direct heat and moisture and in well-sealed containers.
- It is recommended that application be carried out by a skilled applicator, who is totally conversant with the Granosite products and systems, to validate full material warranty conditions.
- For further information, contact the Wattyl Information Helpline. Phone 0800 735551 (New Zealand).

GRANO ADOBE FINISH® IS A SURFACE PREPARATION PRODUCT AND IS USED IN CONJUNCTION WITH VARIOUS GRANOSITE SYSTEMS. AS SUCH IT IS NOT A SYSTEM IN ITSELF AND SHOULD ONLY BE USED WHERE SPECIFIED.

GranoPrime®

Resource Code 849405
July 2004

DESCRIPTION

- GranoPrime® is an acrylic primer sealer. GranoPrime® can be applied by brush, roller or spray, prior to the application of most of the Wattyl Granosite texture systems.

PRINCIPAL CHARACTERISTICS

- Suitable for interior or exterior use.
- Ensures optimum performance of the complete coating system by stabilising irregularities in substrate absorption and mechanical strength.
- Speeds the application, controls the drying and ensures strong adhesion of topcoats to the substrate.
- On concrete, cement render and mortar joints, the use of GranoPrime® minimises the threat of loss of adhesion or other problems that may arise due to presence of residual alkali salts.
- As an acrylic, GranoPrime® is not subject to the degradation that can occur with polyvinyl acetates (PVAs) in an alkaline environment.

COLOURS AND GLOSS

- Off-white

BASIC DATA AT 25°C

- **Surface Dry** — Two (2) hours
- **Recoat** — Two (2) to six (6) hours
  All figures are quoted at 25°C and 50% Relative Humidity. Drying will take longer at lower temperatures or higher relative humidity.
- **Density** — 1.04 kg/L
- **Consistency** — Milky liquid
- **Coverage per coat** — 0.08L/M² (12.5M²/L)
- **Wet Film Thickness** — 80 microns (approx)
- **Dry Film Thickness** — 20 microns (approx)
- **Thinning**
  - High Absorption Substrates — Mix 1 part GranoPrime® with 1 part water.
  - Medium Absorption Substrates — Mix 2 parts GranoPrime® with 1 part water.
  - Low Absorption Substrates — Use GranoPrime® undiluted.
- **Clean-up** — Thoroughly clean equipment with water.

RECOMMENDED SUBSTRATE CONDITIONS AND TEMPERATURE

- **High Absorption Substrates:** Concrete block, cement render, brick, CFC and fibre cement sheeting, CSR™ Hebel® Autoclaved Aerated Concrete (AAC), coloured renders, lime washes, Grano Adhesive Mortar® (G1.06NZ), Grano Modified Render® (G1.10NZ), GranoReady Render® (G1.12NZ), GranoPatch Smooth (G1.04NZ), GranoFlex® (G1.15NZ).
- **Medium Absorption Substrates:** Off-form concrete under 40mpa, Polystyrene panels.
- **Low Absorption Substrates:** Previously painted surfaces, off-form concrete over 40mpa, high density bricks.
- GranoPrime® is **not suitable** for application to steel or timber substrates.
- Surface Preparation is the responsibility of the Builder, Renovator or Main Contractor and the Applicator. To achieve the indicated performance, application must be carried out according to Wattyl's recommendations.
- Ensure the surface is clean and dry. All substrates must be free of dirt, grease, oil, mould, release agents, bondbreakers or any other contaminants that may interfere with adhesion. Fresh concrete substrates should be left for a minimum of 28 days before coating; fresh plaster surfaces should be left for a minimum of 14 days. There must be less than 15% moisture Wood Equivalent in the surface at the time of coating to ensure optimum coating performance.
- Application **should not** be carried out if the air temperature or the substrate temperature is below 10°C or above 35°C. The temperature must not fall below 10°C during the drying process.
- Freshly applied material must be protected from frosts and rain for a minimum of forty eight (48) hours.

INSTRUCTIONS FOR USE

- Stir contents thoroughly with a power stirrer before use.
- Apply one (1) coat to a correctly prepared surface by brush, roller or spray.
- Airless Spray Settings**:** Tip - 519-521 Pressure - 1500 – 2000 psi

SAFETY DATA

- **Caution** Provide adequate ventilation during use.
- **Spills and Disposal** Do not allow spilt material to enter drains or other watercourses. Absorb spills with sand or other inert material. Unwanted paint should be kept in a sealed container, such as an empty paint can, and disposed of via special waste collection services. Check with your local Council regarding the disposal of empty paint containers
- **M.S.D.S.** A Material Safety Data Sheet (M.S.D.S.) is available on request.
- **First Aid**

  If swallowed **do not** induce vomiting. Give plenty of water to drink. Contact a doctor or the Poisons Information Centre. Phone 0800 764766 (New Zealand).
  If in eyes, hold eyes open and flood with water for at least 15 minutes. Contact a doctor if any irritation occurs.
  If on skin remove contaminated clothing, wash skin thoroughly with soap and water or a proprietary skin cleanser. Do not use solvents.
  If affected by inhalation remove person to fresh air. If breathing difficulties persist or occur later, contact a doctor.

ADDITIONAL DATA

- Available in 15 litre containers.
- Containers must be secured and stored upright during transit.
- Containers must not be exposed to excessive heat or cold.
- Storage must be under cover, away from direct heat, freezing and moisture, in well-sealed containers.
- It is recommended that application be carried out by a skilled applicator, who is totally conversant with the Granosite products and systems, to validate full material warranty conditions.
- For further information, contact the Wattyl Information Helpline. Phone 0800 735551 (New Zealand).

GRANOPRIME® IS A SURFACE PREPARATION PRODUCT AND IS USED IN CONJUNCTION WITH VARIOUS WATTYL GRANOSITE SYSTEMS. AS SUCH IT IS NOT A SYSTEM IN ITSELF AND SHOULD ONLY BE USED WHERE SPECIFIED.

GranoImpact®

DESCRIPTION

- GranoImpact® is a pure acrylic, high performance elastomeric coating able to be applied in a variety of styles by roller or spray.
- Approved to APAS 0118/2 & APAS 0117/3.

PRINCIPAL CHARACTERISTICS

- Suitable for interior or exterior use.
- GranoImpact® systems have good adhesion to a wide variety of substrates and have excellent resistance to mould and fungi.
- As an acrylic membrane, the vapour permeability of GranoImpact® is carefully controlled to form a barrier to external moisture, while allowing vapour in the substrate to escape. It is, however, not suitable for situations where hydrostatic pressure exists.
- GranoImpact® also forms the final topcoat of many other Granosite systems, extending the performance and overall protection of the system applied.
- GranoImpact® is water-based for applicator safety and ease of use.

COLOURS AND GLOSS

- Bases may be tinted as required. Refer to the Wattyl colour range including the authentic heritage range. May also be tinted to other competitor colour ranges through the Wattyl tinting system.
- It is recommended that, for exterior application, the light-fastness of the chosen colour be confirmed before ordering.
- Satin
- Colours of Light Reflectance Values (LRV) of less than 40% shall not be used on substrates as specified in NZBC Acceptable Solution E2/AS1 Section 2.4 Cladding Finish Colours. For other substrates Colours of Light Reflectance Values (LRV) of less than 40% may result in unacceptable thermal movement and we caution the use of darker colours.

BASIC DATA AT 25°C

Surface Dry	Four (4) hours		
Recoat	Six (6) hours		
Hard Dry	Seven (7) days All figures are quoted at 25°C and 50% Relative Humidity. Drying will take longer at lower temperatures or higher relative humidity.		
Density	1.33 Kg/L		
Consistency	Thick, creamy paste.		
Texture	Low Profile (10-12mm pile roller)	High Profile (Fine black texture roller)	Airless (Airless spray gun)
Coverage per coat	0.18 L/M² (5.5M²/L)	0.50 L/M² (2.0M²/L)	0..33 L/M² (3.0M²/L)
Wet Film Thickness (per coat)	180 microns (approx)	500 microns (approx)	330 microns (approx)
Dry Film Thickness (per coat)	85 microns (approx)	240 microns (approx)	160 microns (approx)
Moisture Control	Excellent, however the coating must not be subject to hydrostatic pressure.		
Water Ponding	50.5 - Excellent. (mg of water passed after 50 hours at 25°C and 50% relative humidity)		
Water Swelling	39.6. (ASTM D-471 % increase weight by weight)		
Water Permeability	Passed (AS 2904 Appendix G - 6 metre head of water)		
Vapour Permeability	12.6 (gm/ m²/24 hrs) DIN 52615 (at 500um dry film build)		
Vapour Transmission	25.0 (gm/m²/24hrs) ASTM-E-96 (at 360um dry film build)		
Carbon Dioxide Diffusion	Rb =459.6m (Engelfried Method)		
Chloride Ion Diffusion	1.3 x 10^{-9}cm²sec^{-1} (Taywood in-house method)		
Abrasion Resistance	5,000 cycles - Film integrity excellent (AS 1580 459.1)		
Salt Spray	No effect (AS 2331.3.1)		
Elongation	524% (ASTM D-412 at 25°C)		
Tensile Strength	36.4 kg/cm^2 (ASTM D-412 at 25°C)		
Crack Bridging	3.65 (Crack width bridged per unit dry film thickness)		
Dirt Pick-Up	1 - on a scale of 0 - 5 where "0" is no dirt retained (AS 1580 481.1.4 12 months)		

BASIC DATA AT 25°C - continued

- Early Fire Hazard (AS 1530.3)

Ignitability	(0-20)	11
Spread of Flame	(0-10)	0
Heat Evolved	(0-10)	2
Smoke Developed	(0-10)	3

- Thinning — Not required, but may be thinned with up to 10% water for cutting in and spray applications. Thinning rates for airless spray will vary according to the brand of equipment used.
- Clean up — Thoroughly clean equipment with water.

RECOMMENDED SUBSTRATE CONDITIONS AND TEMPERATURE

- GranoImpact® may be applied to off-form concrete Class 2 (AS 1510) or equivalent, cement rendered fair-faced flush-jointed concrete block and brickwork (common, clay, concrete), CFC, tilt-up and pre-cast concrete and paperfaced plasterboard. Make-good of the substrate is necessary if substrate imperfections are to be eliminated. Please refer to separate Datasheets for Grano Adhesive Mortar® (G1.06NZ) or Grano Modified Render® (G1.10NZ), GranoPatch® Smooth (G1.04NZ).
- Surface Preparation is the responsibility of the Builder, Renovator or Main Contractor and the Applicator. To achieve the indicated performance, application must be carried out according to Wattyl's recommendations.
- Ensure the surface is clean and dry. All substrates must be free of dirt, dust, grease, oil, mould release agents, bondbreakers and any other contaminants that may interfere with adhesion. Fresh concrete substrates should be left for a minimum of 28 days before coating; fresh plaster surfaces should be left for a minimum of 14 days. There must be less than 15% moisture Wood Equivalent in the surface at the time of coating to ensure optimum coating performance.
- Application should not be carried out if the air temperature or the substrate temperature is below 10°C or above 35°C. The temperature must not fall below 10°C during the drying process.
- Freshly applied material must be protected from frosts and rain for a minimum of forty eight (48) hours.
- Not suitable for roofs, ponds etc or walk on surfaces.
- For specific substrate preparation, see relevant specification sheets.

INSTRUCTIONS FOR USE

- Stir contents thoroughly with a power stirrer before use.
- GranoImpact® is normally applied in a two (2) coat application by roller to achieve the desired texture finish or the specified dry film thickness to a correctly prepared and primed surface. GranoImpact® may be applied as a single finish coat on texture finishes over correctly prepared and primed surfaces by airless spray; however care must be taken to ensure an even overall finish is obtained.
- AIRLESS GUN SETTINGS

Tip	519 or 521	Pressure Setting	2500 to 3000 psi

SAFETY DATA

- Caution — Provide adequate ventilation during use.
- Spills and Disposal — Do not allow spilt material to enter drains or other watercourses. Absorb spills with sand or other inert material. Unwanted paint should be kept in a sealed container, such as an empty paint can, and disposed of via special waste collection services. Check with your local Council regarding the disposal of empty paint containers
- M.S.D.S. — A Material Safety Data Sheet (M.S.D.S.) is available on request.
- First Aid

  If swallowed do not induce vomiting. Give plenty of water to drink. Contact a doctor or the Poisons Information Centre. Phone 0800 764766 (New Zealand).

  If in eyes, hold eyes open and flood with water for at least 15 minutes. Contact a doctor if any irritation occurs.

  If on skin remove contaminated clothing, wash skin thoroughly with soap and water or a proprietary skin cleanser. Do not use solvents.

  If affected by inhalation remove person to fresh air. If breathing difficulties persist or occur later, contact a doctor.

ADDITIONAL DATA

- Available in 15 litre containers.
- Containers must be secured and stored upright during transit.
- Containers must not be exposed to excessive heat or cold.
- Storage must be under cover, away from direct heat, freezing and moisture, in well-sealed containers.
- It is recommended that application be carried out by a skilled applicator, who is totally conversant with the Granosite products and systems, to validate full material warranty conditions.
- For further information, contact the Wattyl Information Helpline. Phone 0800 735551(New Zealand).

MAINTENANCE SCHEDULE

System Type	Age	Procedure
All Granosite Nu-Age Cladding and Coating Systems	Annually	Chemical / detergent wash. Have the entire coated area inspected by a person with sufficient experience to identify any maintenance requirements to ensure weathertightness. Undertake all necessary repairs immediately. ***For hard to remove stains, refer to the stain removal guide.***
Granosite Coating Systems	7 Years	After seven years exposure the following maintenance procedure is required to validate the *Granosite Seven-Year Renewable Warranty.* Chemical / Detergent wash to remove all surface contaminates. Complete all necessary repairs. Ensure surface is clean, dry and free from surface contaminates and suitable for painting prior to the application of each coat. Apply one or two coats of the current finish coat as specified by Wattyl (NZ) Ltd. Application for the Warranty must be within 30 days of completion of the work and is subject to an inspection by a Wattyl Granosite representative, plus presentation by the *applicator* of the completed Quality Assurance checklist and materials documentation. After receipt of the applicators' warranty request upon completion of this treatment, a new Manufacturer's Warranty may be issued for a period of seven years.
Granosite Nu-Age Cladding Systems	Annually	**Nu-Therm 40/60 or Nu- Lite Owner's Maintenance Schedule** Inspections of the complete cladding surface must be carried out at least annually at the end of summer. Because of settling after disturbances to the ground during construction, and the slow moisture-loss shrinkage of concrete slabs, it is recommended that six-monthly inspections be made for the first three years. A person with sufficient experience to identify any maintenance required should carry out the annual inspection for weathertightness. Any cracks or damaged areas, including flashings and seals that have deteriorated, must be repaired immediately to ensure the integrity of the building envelope is maintained. Any damage to the substrate must be repaired in accordance with the substrate manufacturer's instructions followed by re-plastering and recoating to the same standard as the original GranoTherm System installation. If chemical free framing timber has been used, it is imperative that the maintenance of the cladding system is followed rigorously to ensure the minimum moisture ingress takes place to prevent expensive and extensive structural repair work.

		Regular washing of the coating (at least once per year) is required to maintain the life and appearance of the weather-protective coating system. This should be carried out with a mild detergent and low-pressure water wash. As part of the Warranty conditions the finish coat(s) will need to be re-applied between years seven and eight as specified by Wattyl (NZ) Ltd. For exposed locations washing and re-painting may be required more frequently.