Supercoat™

Advanced Coating Systems for Future Living

AAC Coating Systems

Technical Manual

GUARANTEE

NEW ZEALAND MADE

ATOMX NANOTECH

100% NZ
Owned & Operated

Supercoat™ Coating Systems for use over Supercrete™ AAC Panels & Blocks.

Supercoat™ Coating Systems have been specifically formulated for application over Supercrete™ AAC (Autoclaved Aerated Concrete), engineered to accommodate the breathability, thermal expansion and contraction and physical characteristics that are unique to Supercrete™ AAC. Supercoat™ products can also be used over a wide range of other building materials; however, the scope of this manual is limited to the various combinations of Supercoat™ Coating System products used over Supercrete™ AAC Panels and Blocks. Refer to the website www.supercoat.co.nz and www.superbuild.co.nz, for design guides, technical datasheets and material safety datasheets.

This manual should be read in conjunction with all technical literature for the products and systems to be coated.

Understanding Supercrete™ AAC Panels & Blocks

Supercrete™ Panels and Blocks are made from Autoclaved Aerated Concrete (AAC). The panels are manufactured reinforced with steel mesh, Block reinforcing is added during construction. This lightweight, cellular concrete has been crystallized under heat and pressure in a steam autoclave, giving unique thermal, acoustic and fire insulation properties and dimensional accuracy, for a high quality finish. The panels are available in 50mm and 75mm thicknesses for cladding the outside of timber and steel framed buildings. Panel thicknesses of 100mm, 125mm, 150mm, 200mm and 250mm are used for a variety of commercial and industrial walls, or as load bearing wall panels, Blocks come in 50mm, 75mm, 100mm, 150mm, 200mm, 250mm and 300mm thicknesses.

Supercrete™ installation is carried out by trained Installers under the direction of Supercrete™ Distributors and System Providers. The Installer can easily cut, drill, sand, rasp and shape the panels with carpentry tools to suit most wall detailing requirements. Screw holes, joints and any surface chips or blemishes are bogged and stopped using Supercoat™ AAC Superbond Adhesive or any of the various Supercoat™ base render products. Once dry, the walls are sanded by the Installer prior to handing over to the Supercoat™ Coating Applicator. The Applicator of the Supercoat™ products should therefore find the panel wall surface smooth, plumb, blemish-free and sanded flush at the joints, ready to take the selected Supercoat™ Coating System.

IMPORTANT APPLICATOR INFORMATION

- Moisture is likely to be retained in the substrate and plaster systems prior to and during the application and installation process, especially during wet winter months. It is important that applicators ensure that they allow adequate time for the substrate and render products to completely dry out before applying any subsequent Acrylic products.
- Always allow a minimum of 24 hours between each coat of Acrylic sealer and final paint coats.
- Follow Technical Data Sheets located at www.supercoat.co.nz for curing periods of cementitious based renders.

IMPORTANT OWNER CARE INFORMATION

- It is important that the Owner should not rub or clean the Supercoat™ Coating System with any material for the periods stated below to ensure full cure has taken place;

  * 12 months after coating for Supercoat™ Platinum Series Paint products.

  * 18 months after coating for Supercoat™ Protective Coating System products.

  12 months after this period, the owner can then proceed to care for the external surfaces of their building in the following manner. The owner shall wash the wall surface annually to keep the coating clean. Use water at a low pressure and a soft brush to remove any dirt or dust. Do not use high pressure hoses or water blasters to rinse off. Do not aim water at window vents. If fungus, oil, fuel soot, or other stubborn grime cannot be cleaned with water alone, use Supercoat™ Mould, Moss and Grime Cleaner, available from your local Supercoat™ Distributor. Instructions for dilution rates and application is located on the container. This process removes any dirt or other build up that has gathered on the textured coatings.

Contents

1.0 Coating Products Overview

The coating systems described in this manual are combinations of either Acrylic based products supplied as liquids in various sized pails, or cement based renders supplied dry in bags for on site mixing with water.

The Supercoat™ range of products have been specifically formulated for use over Autoclaved Aerated Concrete. Refer to the website www.supercoat.co.nz for technical manuals, technical data sheets (TDS) and material safety data sheets (MSDS).

Handling and Storage

All products must be stored in a well ventilated area, kept dry, out of direct sunlight, away from freezing conditions and up off concrete floors. The acrylic products, in the original unopened containers, have a shelf life of 2 years from date of manufacture, or 12 months once opened. The dry bagged products, in the original unopened bags, have a shelf life of 6 months from date of manufacture.

If after the first opening the lid is replaced tightly on the acrylic products, the container can be stored upside down, thus sealing the lid and therefore maximising the shelf life.

Keep containers and bags closed at all times when not in use. Avoid contact with eyes, skin or clothing. Avoid breathing vapour. Clean any overspill and splatters thoroughly from surfaces, skin and clothing after use.

Working Temperatures

The dry bagged product is mixed on site with water in accordance with the current technical literature. The minimum operating air temperature is 5˚C ensuring that the temperature does not drop below this during the entire curing process. The maximum operating air temperature is 30˚C.

The acrylic products are supplied in pails ready to apply in accordance with the current technical literature. The minimum operating air temperature for exterior coating is 10˚C ensuring that the temperature does not drop below this during the entire curing process. Internal application minimum operating air temperature is 5˚C ensuring the temperature does not drop below this during the entire curing process, maximum operating temperature is 20˚C

1.1 Keycoat Adhesion Plasters

This product is supplied as a dry powder in 25kg bags, with the Applicator adding the water on site to achieve the desired consistency. Supercoat™ Multitex is a strong adhesive based product with an aggregate to provide a key for the subsequent render layers.

It will cover a variety of substrates as listed below and can be applied over adjacent substrates without modification to enable a smooth, uniform base render coat for the subsequent render/texture coatings.

Supercoat™ Multitex

Supercoat™ Multitex is a graded sand, white cement, high grade lime supplement and additive, dry mixed product, designed as a super strong adhesion plaster to provide an etching key coat for subsequent Supercoat™ render based products.

Its scope consists of;

- Adhering of EPS (expanded polystyrene) or keyed XPS (extruded polystyrene) to solid substrates.
- Utilised as a key coat over smooth surfaces such as previously painted or smooth substrates.
- Can be applied as a mesh coat for reinforcement in difficult areas.
- Mixed as a slurry, applied to PVC (polyvinyl chloride) components to be plastered or coated.
- As a key coat over Clay Brick, Tilt Slab, Concrete Block, Solid Fibre Cement sheet, keyed XPS (extruded polystyrene) and EPS (expanded polystyrene) substrates.

1.2 AAC Adhesives

This product is supplied as a dry powder in 25kg bags, with the Applicator adding the water on site to achieve the desired consistency. Supercoat™ AAC Superbond is a strong adhesive based product designed specifically for bonding Autoclaved Aerated Concrete Blocks and Panels together.

Supercoat™ AAC Superbond Adhesive

Supercoat™ AAC Superbond Adhesive is a graded sand, cement, Calcium Carbonate and additive, dry mixed product for use as a structural thin bed adhesive for Autoclaved Aerated Concrete substrates. Supercoat™ AAC Superbond bonds the Autoclaved Aerated Concrete substrates as required for use in commercial and residential applications.

1.3 Dry Render Products for Levelling & Mesh Coats

There are three different types of base render products and one intermediary mesh covering, levelling render product in the Supercoat™ range. They are supplied as dry powder in 20kg and 25kg bags, with the Applicator adding the water on site to achieve the desired consistency for spreading on the wall. Supercoat™ Renderbond or Supercoat™ Skimbond additives are also mixed in, depending upon conditions of use. Refer to Section 1.5, page 6 for further information on these products.

Supercoat™ Superbuild Render

This render is highly modified with polymers and is ideal for base coats of up to a 6mm thickness (typically 3 - 6mm) per coat, but is potentially capable of much greater builds. The high content of additives alleviate suction issues over many substrates so that the substrate would not have to be sealed using Supercoat™ Surface Sealer prior to application.

It is designed as the first layer into which Supercoat™ Grid Mesh can be pressed. The additives in this mix give the render great build capabilities, workability, elasticity and spreading characteristics off the trowel. Water entraining chemicals allow it to remain wet enough to take the reinforcement, even after the Applicator has taken some time to cover enough wall to receive a full height sheet of grid mesh. Adding Supercoat™ Renderbond will improve performance even further.

Supercoat™ Superbase Render

This render is a quality, cost effective product designed for a premium finish on a tight budget. It is ideal for float coats of up to 4mm thickness (typically 2 - 4mm) per coat. This product becomes a high quality cost effective solution for low suction substrates. This means the substrate does not have to be sealed using Supercoat™ Surface Sealer prior to application. It is designed as the first layer into which Supercoat™ Grid Mesh can be pressed. The Supercoat™ Superbase Render still has good workability, elasticity and spreading characteristics off the trowel. Water entraining chemicals allow it to remain wet enough to take the reinforcement, even after the Applicator has taken some time to cover enough wall to receive a full height sheet of grid mesh. Adding Supercoat™ Renderbond will improve performance even further.

Supercoat™ Superskim Render

Supercoat™ Superskim Render has been specifically formulated as a high quality, graded, fine sand mix with good adhesion, spreading and workability. Supercoat™ Superskim Render is designed for tight 1 - 4mm intermediary mesh covering skim coats and must be applied after the base mesh carrying coat has fully cured. Supercoat™ Skimbond is added for additional polypropylene fibre reinforcement and water entrainers for additional workability and elasticity in varying climatic conditions. Supercoat™ Superskim Render is a far smoother, more flexible skim finish than the general purpose Supercoat™ Superbuild or Supercoat™ Superbase Render products.

Supercoat™ Supersmooth Lime Base

Supercoat™ Supersmooth Lime Base is a natural lime base plaster for Exterior and Interior use, containing high grade lime products, hydraulic bonding agents and washed graded sand. Designed as the base coat to which the Supercoat™ Supersmooth Lime Finish is applied as a pre-coloured top finishing coat.

Prior to application of the Supercoat™ Supersmooth Lime Base. Seal the substrate using Supercoat™ Surface Sealer, this will eliminate any suction issues and ensure ease of application.

Supercoat™ Supersmooth Lime Base must be applied to the wall at a minimum of 6mm and a maximum of 15mm thick per coat.

Supercoat™ Supersmooth Lime Base can be trowelled or pumped onto the wall. Using a suitable straight edge, flatten and straighten the wall to a flat and plum finish.

Where greater than 15mm thickness per coat is to be achieved, it is advised that the Supercoat™ Supersmooth Lime Base be applied in the same fashion as detailed above, but that a minimum period of 24 hours be allowed between coats to allow initial hardening/curing of the material before re-application of any additional material.

When the full lime system (Supersmooth Lime Base & Supersmooth Lime Finish) is applied at a depth greater than 20mm it is considered to be waterproof and no subsequent clear or paint coats will be required.

After the above application, while material is still wet, lightly press Supercoat™ Grid Mesh onto the surface and using a screed, pull material through the mesh and screed to a flat true finish.

Once the lime base has set up, the surface may be floated using a composite or polystyrene float.

The wall is now ready for the finishing Supercoat™ Supersmooth Lime Finish top coat.

1.4 Dry Render Products for Textured Finishes

A common way to finish the surface is to use a sponge on the texture coat whilst it is still wet, this technique soaks up the surface water, exposing the gritty sand aggregate. This leaves a coarse texture, which diffuses light and conceals any minor blemishes or shiny spots. If a traditional plaster appearance is required, there are two different render products in the Supercoat™ range, designed to give a traditional heritage plaster look.

Supercoat™ Supersponge 1 & 2mm

Supercoat™ Supersponge is a render mix designed to allow surface sponging and removal of the water particles without causing the remaining sandy surface to become powdery and crumbly. The Supercoat™ Supersponge is available in 1mm or 2mm graded sand aggregates to give a fine roughness, without too many visible sand protrusions.

Supercoat™ Superadobe

Adobe is the term used to describe the wobbly, undulating, imprecise plaster rendered surfaces seen around the world on uneven substrates, like stone, mud brick, straw bale, timber and thatch. These uneven adobe surfaces are found on old French farmhouses, Spanish ranch homes, African mud huts, English cob cottages, Kansas turf homes, Mexican haciendas and Scottish crofts, to name just a few.

The difficulty with matching this appearance on a perfectly flat substrate, is that there will need to be thin patches and very thick patches to create the undulation. These different areas dry out at different rates and this differential drying can cause shrinkage cracking in traditional adobe plasters. To resist this, Supercoat™ Superadobe has been formulated to even out the drying rates and allow enough elasticity to let the thinner areas dry earlier, without breaking away from the wetter thicker patches.

The Applicator sweeps the product into peaks and troughs using random swirl and scooping action off the trowel. Whilst damp, the sharp ridges can be sponged off to give a soft rolling undulation to the surface if required.

Supercoat™ Supersmooth Lime Finish

Supercoat™ Supersmooth Lime Finish is a natural lime, fine finishing plaster for interior and exterior use, containing fine sand, high grade hydrated lime products, hydraulic bonding agents and additives.

Supercoat™ Supersmooth can be applied in multiple coats over Supercoat™ Supersmooth Lime Base, Superbuild, Superbase or Superskim Renders when a smooth finish is desired. These base coats should be sealed using Supercoat™ Surface Sealer prior to applying the Supercoat™ Supersmooth Lime Finish. Apply Supercoat™ Supersmooth Lime Finish over the Supercoat™ Supersmooth Lime Base, Superbuild, Superbase or Superskim Renders at 2 - 3mm using a lime trowel, normally applied in 2 - 3 tight coats depending on desired finish. Supercoat™ Supersmooth Lime Finish may be applied as a smooth finish or alternatively applied in a 'skip' trowel or brushed method resulting in a hand applied and/or rustic texture.

If the Supercoat™ Supersmooth Lime Base is applied at a thickness of 20mm or greater, it is considered to be waterproof. If this thickness of Supercoat™ Supersmooth Lime Base is not selected as the base coat, then the Supercoat™ Supersmooth plaster will require a Supercoat™ "breathable" paint system to ensure weather tightness is achieved, ensure that 1 coat of Supercoat™ Surface Sealer is applied prior to applying the finishing paint coats.

Supercoat™ Supersmooth Lime Finish can also be batch tinted to a range of colours, the coloured product is only applied to the Supercoat™ Supersmooth Lime Finish which would normally be 2 - 3mm dependant on substrate and desired finish. When used as a coloured finishing plaster over Superbuild, Superbase or Superskim Renders and is not going to be painted with 2 coats of Supercoat™ Exterior Paint, it must be coated with a Supercoat™ Clear Coat. Please contact Ironbark Technology Ltd for the range of colours and clear coat products available.

1.5 Additives for Improving Render Strength & Application Characteristics

Supercoat™ Renderbond

Supercoat™ Renderbond is an Acrylic liquid with water entrainers and additives to improve workability and aid application for use with Supercoat™ Superbuild Render and Supercoat™ Superbase Render products. Refer to Technical Data Sheets, available at www.supercoat.co.nz for mixing instructions.

Supercoat™ Skimbond

Supercoat™ Skimbond is a lightly aerated, creamy acrylic paste with water entrainers and polypropylene fibres, for use with the Supercoat™ Superskim Render, providing additional elasticity and fibre reinforcing strength. Refer to Technical Data Sheets, available at www.supercoat.co.nz for mixing instructions.

1.6 Acrylic Products for Masonry Repair

Supercoat™ Flushing Compound

Supercoat™ Flushing Compound is a synthetic latex reinforced silica filled paste designed for use on cement render and masonry substrates. Primarily for the repair of stress cracking in masonry substrates. Supercoat™ Flushing Compound is a thick, high build, flexible Acrylic base that is supplied ready for use on site in 20L pails.

1.7 Acrylic Products for Levelling & Mesh Coats

Supercoat™ Flexibase is a full Acrylic levelling compound that can be applied (dependant on substrate and application) with or without Supercoat™ Grid Mesh (5mm alkali resistant), please contact Ironbark Technology Ltd for information on areas that can be applied without Supercoat™ Grid Mesh. Supercoat™ Flexibase is supplied in plastic pails ready to be applied to the area. Supercoat™ Flexibase is a high build elastomeric Acrylic membrane, supplied in 4, 8 and 15 litre pails.

Supercoat™ Flexibase

Supercoat™ Flexibase is a thick, high build Acrylic base coat which can be used as a base coating on residential, commercial/industrial buildings, fences and sound barriers. It is designed for float coats of up to 4mm (typically 2 - 4mm) and in most circumstances is fully meshed.

It is highly flexible and therefore suitable in crack prone areas. Supercoat™ Flexibase can be trowelled, pumped or roller applied to the wall. This product is ideally suited for use over flat substrates and is a high quality solution developed using Long Life Protective Coating Technologies.

1.8 Acrylic Products for Textured Finishes

Modern homes often require a flat, monolithic appearance with a consistent level of surface texture. This is not so easily achieved with the cement based sponge products described previously; however, the Supercoat™ range of Acrylic Textures delivers this look perfectly.

The Acrylic Textures are supplied in liquid form in 8 or 15 litre pails and after a quick stir with a power mixer, they are ready to be spread over the base render surface with a trowel and then polished using a plastic float.

Due to the thickness of the Acrylic coating (including the subsequent paint layers) a building coated using these textures will have greater weather and abrasion resistance than the painted cement based Supercoat™ Supersponge, Supersmooth Lime Finish or Superadobe finishes. For hard wearing or extreme weather environments, we recommend using the Supercoat™ Acrylic Textures.

Supercoat™ Texture 1mm

For fine, flat finishes, the 1mm aggregate gives a crisp clean finish.

Supercoat™ Texture 2mm

The 2mm version provides a more grainy appearance.

Supercoat™ Hoppertex

Supercoat™ Hoppertex is a thick, high solids, Acrylic texture coat which can be used on commercial/industrial/residential buildings, fences or sound barriers. Supercoat™ Hoppertex is usually applied by conventional hopper gun to the wall to create a range of textured finishes.

1.9 Supercoat™ Platinum Series Paint

Supercoat™ Acrylic Exterior/Interior

Whether you have chosen a Cementitious Texture or an Acrylic Texture, it is a requirement of either system that two coats of Supercoat™ Paint be used as the final coats. This ensures excellent U.V. protection, weather resistance, colour continuity and ensures that the surface particles are sufficiently bonded together.

The Supercoat™ paint range is weather-proof, but allows microscopic vapour to pass, allowing a building to “breathe” and vent off any excess internal humidity, without letting liquid water pass through from the outside. Refer to Section 1.11, Waterproof vs Water Resistant for a detailed description.

Supercoat™ Platinum Flat Finish

This sheen of paint has a matte finish. This finish is commonly used on interior walls. It’s especially good if you have to camouflage small wall bumps, cracks, or other imperfections as this finish does not reflect light, therefore hiding wall surface imperfections.

Supercoat™ Platinum Low Sheen Finish

If you can picture the very low sheen of the shell of an egg, you have an idea of how Supercoat™ Low Sheen paint finish will appear. With only a slight hint of shine or gloss, it’s great for external walls and holds up better with cleaning than a Flat finish paint. The perfect choice for your exterior Supercrete™ wall finish.

Supercoat™ Platinum Semi Gloss Finish

The Supercoat™ Semi gloss paint is most often used on doors, trim, and cabinets in kitchens and bathrooms. It is easily cleaned and lays down a nice, subtle shine, without being too glitzy. Take care with surface preparation work, as poorly prepared surfaces can be a bit distracting when highlighted by our Semi Gloss surface.

Supercoat™ Platinum Gloss Finish

Our High gloss paints have an almost reflective quality, as their shiny finish mimics the look of enamel or plastic. Though not widely used in home interiors, it is becoming more popular for a dramatic look on cabinets, trim, and furniture in very formal and contemporary settings. This finish will magnify any surface imperfections, so careful preparation and sanding is essential before painting with Supercoat™ High Gloss paints.

Supercoat™ Aqua Enamel

Supercoat™ Aqua Enamel is a highly durable high build pure Acrylic developed using Long Life Protective Coating Technologies. Supercoat™ Aqua Enamel provides excellent coverage, is easy to apply and flows on with a brush, roller or can also be spray applied to create an abrasion resistant, hard wearing polished surface. For use on primed wallboards, primed fibre and particle boards, wallpaper, timber and weatherboards.

Supercoat™ Aqua Enamel Satin Finish

Our Satin finish paint has a smooth, velvety look. It is most often used for windows, doors, trim or ceilings, but can also be used as wall paint. This is particularly suitable for the walls in the kids room, kitchens or bathrooms, or in areas which get a lot of traffic. Supercoat Satin finish is formulated to hold up to cleaning and light scrubbing.

Supercoat™ Aqua Enamel Gloss Finish

Our High gloss paints have an almost reflective quality, their shiny finish mimics the look of enamel or plastic. Commonly used in home interiors for trims, it is also popular for a dramatic look on cabinets and furniture in very formal and contemporary settings. This finish will magnify any surface imperfections, so careful preparation and sanding is essential before painting with Supercoat™ High Gloss paints. It's an excellent choice for bathrooms and trim, as it holds up very well to cleaning and areas where abrasion is likely.

Supercoat™ Ceiling White

Supercoat™ Ceiling White is an Acrylic interior coating for use on internal ceilings. Supercoat™ Ceiling White is a highly durable premium Ceiling White developed using Long Life Protective Coating Technologies. It provides excellent coverage, is easy to apply and flows on with a brush or roller. This product can also be spray applied. For use on primed fibre and particle boards, wallpaper, timber and modified plaster.

Supercoat™ Primer Sealer Undercoat

Supercoat™ Primer Sealer Undercoat is a highly durable, sandable, high build Styrene Acrylic developed using Long Life Protective Coating Technologies. Supercoat™ Primer Sealer Undercoat provides excellent coverage, is easy to apply and flows on with a brush or roller. This product can also be spray applied. For use on wallboards, fibre and particle boards, wallpaper, timber, weatherboards, block work, stucco roughcast plaster, concrete and modified plasters.

Supercoat™ Surface Sealer

This low viscosity Acrylic sealer has excellent surface penetration. Supercoat™ Surface Sealer is designed to even out the suction rate across surfaces prior to the application of the subsequent Acrylic layers. Uneven suction rates in rendered substrates (especially over irregular Supercoat™ Superadobe finishes) can cause patching in the final Acrylic paint coats due to pigmentation changes caused by differing rates of suction of the underlying rendered substrate. The Supercoat™ Surface Sealer serves a dual purpose in that it also increases the spread rates of the subsequent Acrylic layers due to the hard, smooth surface it leaves behind. Supercoat™ Surface Sealer also has lime blocking capabilities, this stops the highly alkaline lime products in base render coats from leaching through the final Acrylic layers.

1.10 Supercoat™ Protective Coating Systems

Supercoat™ Elastoshield

A specially formulated, breathable, elastomeric coating with strong adhesion characteristics for use on most building envelopes. A high viscosity, pure acrylic, incorporating fillers, extenders and fungicides for increased durability. Designed for great adhesion and corrosion resistance with a strong elastomeric membrane providing maximum weather durability under extreme conditions. For coating suitable external surfaces requiring an elastomeric membrane topcoat with excellent micro fissure crack spanning capabilities.

Supercoat™ Supershield Plus

A specially formulated long life, high build coloured topcoat for use over most masonry substrates. Formulated using the latest water borne pure Acrylic polymer technology, containing fungicides and ceramic oxide pigments for extended durability with a unique PTFE technology self cleaning system, making Supercoat™ Supershield Plus a low maintenance long life protective coating system. This is the final colour coat providing a Matte finish. Designed for maximum durability against Ultra Violet light, high humidity and erosion from strong winds and driving rain. The Supercoat™ Supershield Plus contains light fast pigments and is Alkali resistant. This product has been formulated to create a barrier against moisture ingress whilst still allowing the building to breathe. Ideally suited for commercial building applications where extended durability is required.

Supercoat™ Galvanised Iron Primer

Supercoat™ Galvanised Iron Primer is a highly durable high build Styrene Acrylic developed using Long Life Protective Coating Technologies. Supercoat™ Galvanised Iron Primer provides excellent coverage, is easy to apply and flows on with a brush or roller. This product can also be spray applied. For use on Galvanised Iron, Galvalume and Zincalume.

Supercoat™ Galvanised Iron Topcoat

Supercoat™ Galvanised Iron Topcoat is a highly durable, high build pure Acrylic developed using Long Life Protective Coating Technologies. Formulated using the latest water borne pure Acrylic polymer technology, containing fungicides and ceramic oxide pigments for extended durability. Supercoat™ Galvanised Iron Topcoat provides excellent coverage, is easy to apply and flows on with a brush or roller. This product can also be spray applied. For use as a coloured top coat over Supercoat™ Galvanised Iron Primer.

1.11 Products for Waterproofing

Supercoat™ Tanking Membrane

Supercoat™ Tanking Membrane is a fully waterproof, non vapour permeable Acrylic barrier for a variety of waterproofing applications.

Supercoat™ Tanking Membrane Keycoat

This product has aggregate added to aid the bonding of subsequent layers of render/texture products, for use on surfaces that will have render applied over the tanking. It can be applied directly to the substrate, or as a top coat to Supercoat™ Tanking Membrane.

Supercoat™ Deckshield

This product has aggregate, hardeners and abrasion resistant additives to give a durable, trafficable, non-slip surface. For use on surfaces that will be subject to general foot traffic. It can be applied as a top coat to Supercoat™ Tanking Membrane.

These products are described in detail in the Waterproofing Systems Technical Manual. Refer to the website www.supercoat.co.nz for more information.

Supercoat™ Tanking Mesh

This is a fine 62gsm polymer mesh made from 40 denier polyester with a 62/65 mesh construction that the applicator embeds into the first Supercoat™ Tanking Membrane layer and completely conceals with the second and third coat. The Supercoat™ Tanking Mesh reinforces the coating system and provides greater resistance to movement. Its embedment and concealment ensures the correct system thickness of Supercoat™ Tanking Membrane is applied. Supercoat™ Tanking Membrane is available in 400, 800, 1200 & 1500mm wide by 50m rolls. Custom sizes within this range can also be obtained by special order.

Waterproof vs Water Resistant

The distinction between a **waterproof** coating and a **water resistant** coating is an important one.

Supercoat™ Acrylic Paints and Textures are **water resistant** in the sense that they will not allow water as a liquid, to pass through them. Under normal atmospheric conditions the microscopic pores of the **water resistant** Acrylic coating are too small to allow liquid water to pass through them, provided always, they have been applied to an area where a sufficient fall provides adequate run off to avoid water pooling. Water resistant coatings will however, allow water vapour to pass through these pores when in a gaseous state. This enables internal moisture vapour, such as steam from cooking or washing and vapour from breathing etc., to escape the building, whilst preventing rain from entering. Most wall and floor surfaces benefit from NOT being waterproof, but simply being water resistant.

By contrast, a **waterproof** coating has no pores to allow water liquid or vapour to pass. Supercoat™ Tanking Membrane is fully **waterproof** and therefore only suitable for selected wet areas, such as decks, parapet or balustrade tops, upper surfaces of sills, bathrooms, laundries or kitchen surfaces. Elsewhere, it is critical that only **water resistant** breathable coatings are used to avoid the problems caused by a build up of internal moisture.

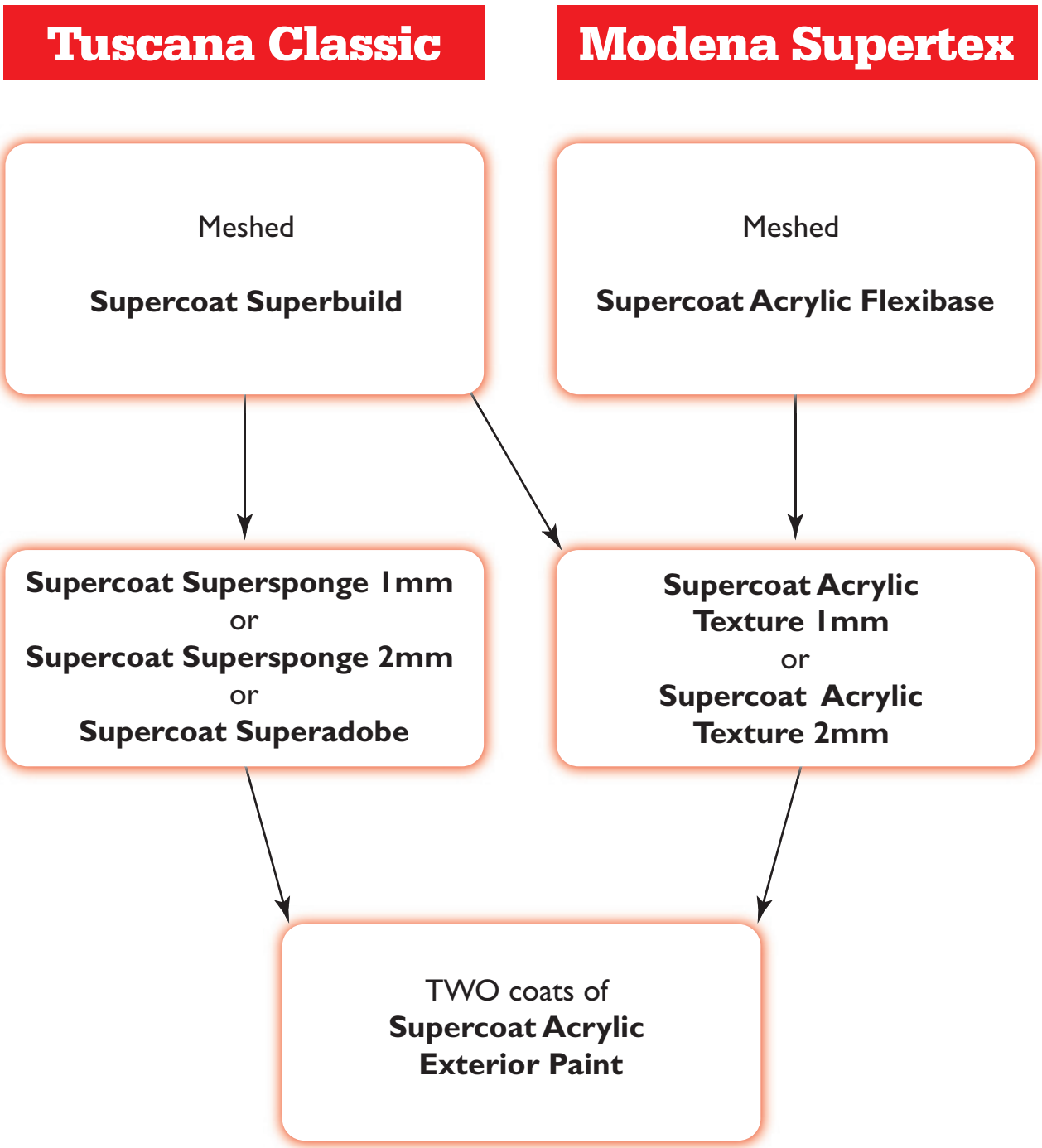
2.0 Choosing the Right System

When choosing a finishing system for the external walls of your building we have provided you with two coating systems as a guideline for your designer.

The cement base and texture option is called the “Tuscana Classic” and the full Acrylic option is called the “Modena Supertex”

The following pages summarize the specification of each system in more detail.

The owner or designer need only nominate the system type (Tuscana Classic or Modena Supertex) and the required texture. For instance, an architect may mark on the construction drawings that the coating shall be “Tuscana Classic - Supercoat™ Superbuild/Supersponge” and it is clear to the applicator what the whole coating system needs to be.



2.1 Tuscana Classic

Tuscana Classic System Summary

Layer 1 - Apply a 3 - 6mm coat of Supercoat™ Superbuild Render.

Layer 2 - Supercoat™ Grid Mesh, (5mm alkali resistant) embedded into the wet first layer and pressed in using the steel float.

Layer 3 - A 3 - 6mm float coat of Supercoat™ Superbuild Render or a 1 - 4mm coat of Supercoat™ Superskim Render, floated to ensure complete mesh encapsulation and smooth out any minor hollows, ready to take the texture coat.

Layer 4 - A texture coat of either;

(a) Supercoat™ Supersponge 1mm

(b) Supercoat™ Supersponge 2mm

(c) Supercoat™ Superadobe

(d) Supercoat™ Acrylic Texture 1mm

(e) Supercoat™ Acrylic Texture 2mm

Layer 5 - One coat of Supercoat™ Surface Sealer will be required when a cement based texture is chosen as layer 4.

Layer 6 - Two coats of Supercoat™ Acrylic Exterior Paint.

Tuscana Classic System Details

Layer 1 - Base Render Coat

Apply a 3 - 6mm coat of Supercoat™ Superbuild Render. This coat also serves as a levelling coat and depending upon the condition of the substrate, it may be necessary to build it up and/or feather it out.

Layer 2 - Supercoat™ Grid Mesh

The installation of the mesh provides the coating system with superior crack resistant qualities. The grid of woven fibreglass strands, bonded in alkali resistant resin, forms a 5mm square lattice woven reinforcing mat. Supercoat™ Grid Mesh typically comes in rolls which are 50 metres in length and 1.2 metres in width. The mesh is cut to suit the wall height and once a suitable width of wall has had its base coat applied, the sheet of mesh is pressed in using the trailing edge of the steel trowel. This action of squashing the mesh into the surface of the wet base render causes some of the first coat to ooze through the square holes, where it spreads over the surface and locks the mesh in place.

Layer 3 - The Float Coat

This 3 - 6mm layer of Supercoat™ Superbuild Render or a 1 - 4mm coat of Supercoat™ Superskim Render, is used as a float coat over the reinforced base layer. This smoothes out the surface to conceal the grid imprint of the mesh, visible in the first layer and is used to ensure a perfectly flat wall is prepared ready to take the texture.

If Supercoat™ Superbuild Render is used as the base and float coat then the two coats can be fused together as a single wet coat to encapsulate the Supercoat™ Grid Mesh.

If the Supercoat™ Superskim Render is used as the float coat, then layer 1 and 2 must be dry before application.

Layer 4 - Texture Coat

Option (a) - Supercoat™ Supersponge 1mm

This is a 1 - 3mm thick coat applied with a steel trowel and finished with a plastic float to a light textured finish. While this coat is still damp, a sponge float can be worked over the surface to give a patterned finish. Different effects can be achieved by dabbing, dragging or swirling the sponge, so a sample area should be done to allow the owner to select the preferred technique. Alternatively, just polish with a plastic float to the desired finish.

Option (b) - Supercoat™ Supersponge 2mm

This is a 2 - 4mm thick coat applied with a steel trowel and finished with a plastic float to a light textured finish. While this coat is still damp, a sponge float can be worked over the surface to give a patterned finish. Different effects can be achieved by dabbing, dragging or swirling the sponge, so a sample area should be done to allow the owner to select the preferred technique. Alternatively, just polish with a plastic float to the desired finish.

Option (c) - Supercoat™ Superadobe

The Supercoat™ Superadobe can be applied in thicknesses of between 3 - 8mm per coat to create a light to heavy undulating surface. Once applied the Supercoat™ Superadobe can be lightly sponged, rounding the trowel marks, peaks and ridges to provide a softer undulating appearance if desired. Once applied ensure to allow a minimum of 7 days to cure prior to coating with subsequent Acrylic coats.

Option (d) - Supercoat™ Acrylic Texture 1mm

This texture coat is delivered onto the wall with a steel trowel and finished with a plastic float. It is spread by pressing firmly with the steel trowel. Then by lightly swirling the plastic float in approximately 30cm diameter arcs over the surface, the texture will find its own level at the height of the 1mm sand aggregates.

Option (e) - Supercoat™ Acrylic Texture 2mm

The Supercoat™ 2mm Acrylic Texture is applied and floated exactly the same as the Supercoat™ 1mm Acrylic Texture described above, it simply gives a heavier textured appearance.

Layer 5 - Supercoat™ Surface Sealer

Once the rendered surface is dry and cured, 1 coat of Supercoat™ Surface Sealer is applied to a 100 micron wet film thickness. Supercoat™ Surface Sealer is a very thin consistency Acrylic based product, designed for excellent surface penetration into all masonry substrates. Supercoat™ Surface Sealer will fill in microscopic pores, therefore sealing the surface and creating an even suction rate across the entire wall, high suction not only makes application difficult, it can also cause pigmentation changes of the subsequent Acrylic paint layers. Supercoat™ Surface Sealer will only be required here when a cement based texture is chosen for layer 4. If an Acrylic texture is chosen then 1 coat of Supercoat™ Surface Sealer will be required after the application of layer 3.

Supercoat™ Surface Sealer also improves spread rates of the subsequent Acrylic layers. It can easily be applied onto the wall by airless spray or even a knapsack weed sprayer. This is best done if all adjacent surfaces, such as soffits, roofs, neighbours cars, etc are masked or covered to avoid overspray. Alternatively, the sealer can be applied with a soft nap painters' roller or even a wide brush.

Layer 6 - Supercoat™ Acrylic Exterior Paint

Two coats of Supercoat™ Acrylic Exterior Paint is required to obtain a solid block colour and consistent locking in of the surface texture particles. The paint is usually applied with a soft nap paint roller, taking care to keep a wet edge and blend each roller stroke with the adjacent one (to avoid ridges or lines in the paint surface). Supercoat™ Acrylic Exterior Paints are particularly thick and creamy with a high solids content, providing a premium finish.

2.2 Modena Supertex

Modena Supertex System Summary

Layer 1 - A 2 - 4mm coat of Supercoat™ Acrylic Flexibase is applied with a steel float evenly across the wall.

Layer 2 - Supercoat™ Grid Mesh, embedded into the wet first layer and pressed in using a steel float.

Layer 3 - A 2 - 4mm float coat of Supercoat™ Acrylic Flexibase over the first coat, floated to ensure complete mesh encapsulation and smooth out any minor hollows, ready to take the texture coat.

Layer 4 - An Acrylic Texture coat of either;

(c) Supercoat™ Acrylic Texture 1mm

or

(d) Supercoat™ Acrylic Texture 2mm

Layer 5 - Two coats of Supercoat™ Acrylic Exterior Paint.

Modena Supertex System Details

Layer 1 - Supercoat™ Flexibase Acrylic Base Coat

A 2 - 4mm coat of Supercoat™ Acrylic Flexibase is applied with a steel float evenly across the wall.

This coat serves as a levelling coat and depending upon the condition of the substrate, it may be necessary to build it up and/or feather it out. Supercoat™ Flexibase has a limitation of 4mm per coat, if greater build is required then it is recommended to use the Tuscana Classic option.

Layer 2 - Supercoat™ Grid Mesh

The installation of the mesh provides the coating system with superior crack resistant qualities. The grid of woven fibreglass strands, bonded in alkali resistant resin, forms a 5mm square lattice woven reinforcing mat. Supercoat™ Grid Mesh typically comes in rolls which are 50 metres in length and 1.2 metres in width. The mesh is cut to suit the wall height and once a suitable width of wall has had its base coat applied, the sheet of mesh is pressed in using the trailing edge of the steel trowel. This action of squashing the mesh into the surface of the wet Supercoat™ Acrylic Flexibase causes some of the first coat to ooze through the square holes, where it spreads over the surface and locks the mesh in place.

Layer 3 - The Float Coat

This 2 - 4mm layer is a float over the reinforced base layer. This smoothes out the surface to conceal any mesh, or the grid imprint of the mesh, visible in the first layer.

> If this coat is floated over the meshed area while the bottom layer is still wet (the two coats can be fused together) then both layer 1 and 3 can be applied as a single coat.

Layer 4 - Acrylic Texture Coat

Option (a) - Supercoat™ Acrylic Texture 1mm

This texture coat is delivered onto the wall either with a steel float off the hawk. It is spread by pressing firmly with the steel float. By lightly swirling the plastic float in approximately 30cm diameter arcs over the surface, the texture will find its own level at the height of the 1mm sand aggregates.

Option (b) - Supercoat™ Acrylic Texture 2mm

The Supercoat™ 2mm Acrylic Texture is applied and floated exactly the same as the Supercoat™ 1mm Acrylic Texture described above, it simply gives a heavier textured appearance.

Layer 5 - Paint Coats

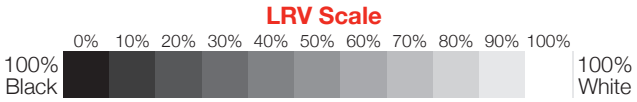
Two coats of Supercoat™ Acrylic Exterior Paint are required to obtain a solid block colour and consistent locking in of the surface texture particles. The paint is usually applied with a soft nap paint roller, taking care to keep a wet edge and blend each roller stroke with the adjacent one (to avoid ridges or lines in the paint surface). Supercoat™ Acrylic Exterior Paints are particularly thick and creamy, providing a premium finish.

Appendix A

Light Reflectance Values (LRV)

What is LRV?

The light reflectance value (LRV) of a colour can be measured by a spectrophotometer. This device can measure how much of the visible spectrum of light is reflected by a particular colour. The LRV is measured in a range from 0 - 100% LRV. Pure black gives a 0% reading and pure white gives a 100% reading. Light that is not reflected by the colour is absorbed into the paint. The energy produced by the light absorbed into the paint is ultimately converted into heat, so the lower the LRV the more heat energy that is produced by the surface coating of a building.



The LRV can be affected by the finished surface of the coating, for example a jet black gloss finish paint will achieve some reflective values working in a similar way to that of a mirror, where flat/matte and textured paints do not have these properties and therefore will only reflect in a radiated manner.

LRV Sensitive Substrates

Higher LRV's are often specified for substrates that are either sensitive to heat, or where thermal expansion and contraction would have a negative impact on the buildings ability to function and remain weather tight. Heat energy build up can increase the risk of the cracking at joints in monolithic wall claddings, especially where timber framing is the supporting structure.

When sampling paint colours, paying attention to Light Reflectance Values as you try different hues, tints, tones and shades creates benchmarks that can assist you in arriving at colour selections quickly and efficiently.

Most Building Material Appraisals for claddings and exterior products state that paint colours must have an LRV higher than 40%. Colours darker than this are assessed as Alternative Solutions to the NZ Building Code and require consent from the relevant Building Control Authority.

LRV's and Building Control Authorities

In certain visually sensitive environments, there are town planning requirements which dictate that darker colours (below 40% LRV) must be used, even though this may be beyond the limits of what is required for compliance with the N.Z.B.C. Supercoat™ recommends that when selecting a colour you consult your local Building Control Authority about any restrictions that they may have on the LRV and the suitability of colours below 40% LRV.

Colours in the LRV Range 40% down to 25%

Use of colours in this range are considered an Alternative Solution to the Building Code and as such, requires consent from your Building Control Authority. The Supercoat™ 8 year warranty still applies to this range of LRV, as long as the B.C.A. approval is given.

Colours in the LRV Range 25% down to 0%

If a colour that has an LRV of less than 25% is selected, the building owner will be required to sign a Colour Waiver Form. This form identifies the colour selected for the property as having an LRV under 25%. This waiver removes any rights to claim, under warranty for any future damage to coating or building, caused by excessive heat transmitted by the dark colour.

Colour Variations between Batches & Tints

As in good trade practice, all pails of tinted paint should be boxed together prior to use (without exception). This ensures consistency of colour is achieved over the entire job.

Ironbark Technology Ltd produces only the highest quality paints for professionals using the highest quality raw materials; this is backed up with quality support. As part of this service, we offer advice to our Networks of Distributors and system providers about colour to help them achieve the best results time after time.

The human eye can differentiate between approximately 10 million colours, the way in which light hits a building can alter that perceived colour, in some cases substantially. However, although paint manufacturers have been making and using colours for many, many years, there are fundamental issues around colour matching that still arise.

Industry standard paint technology is still plagued with many variables and whilst these variables may be very small, they can still be quite significant at times.

Why are variables experienced?

1) Manufactured pigments have always differed from batch to batch.
2) Tinting machines consistently produce a slightly different strength of colour each time.
3) Raw materials used in the manufacture of bases vary every time the product is made.

These are just three reasons why, historically, the paint industry has always experienced batch to batch variation on ready mixed and tinted paint based products.

Over the last 20 years the market has moved from ready mixed to predominately tinted paints. Whilst this gives our Distributors, system providers and end users greater advantages, it also introduces the obstacles associated with colour variation. These colour variations effect a wide range of industry where colours are used.

What can be done to minimise the impact of colour variation?

1) Use a single batch for a job or an isolated area. i.e. a paint product that has been tinted from the same tinting machine at the same time.
2) Do not use paint from different batches on the same surface or surfaces close together. If possible, purchase paint for the whole job at one time.
3) Industry trade practice requires that if you have mixed batches of coloured paint then they must always be 'boxed' together. i.e. mixing all the paints in a large container will always ensure colour consistency.
4) Check the colour of all buckets in each batch before you use it.
5) Ask the Client or Project Manager to agree that the colour (and quality of the paintwork) is in line with the specification by signing off a small test area at the beginning of the project. This will avoid costly recoating every time.
6) The appearance of a colour always depends on the type of lighting. Therefore be sure that the Client or Project Manager checks the colour in suitable lighting conditions. The Client or Project Manager may not ask for this so painting contractors need to be proactive in requesting this check.
7) 'Touching up' should only be attempted using paint from the original job using the same application methods. Therefore, paint should be reserved specially for this purpose. It is recommended that touching up is carried out up to a break in the wall or surface. With particular colours, usually deeper shades and higher sheen finishes it may be necessary to recoat the entire area to avoid noticeable differences in appearance.

If you have any questions don't hesitate to contact Ironbark Technology Ltd for professional advice.

Technical Support

Ironbark Technology Ltd and its nationwide network of distributors and system providers offer technical assistance in New Zealand.

Visit www.supercoat.co.nz for your nearest distributor or system provider who will offer free estimating services and/or technical support to project architects, engineers, builders and owners.

Guarantee

Ironbark Technology Ltd guarantees its Supercoat™™ Coating Systems to be free of defect in materials and manufacture. This guarantee excludes all other guarantees and liability for damage or loss in connection with defects in Ironbark Technology Ltd's product, other than those imposed by legislation.

Health & Safety

Information on any known health risks of our products and how to handle them safely is shown on their package and/or the documentation accompanying them. Additional information is listed in the Material Safety Data Sheets available on our website www.supercoat.co.nz.

Disclaimer

Colour Variations between Batches & Tints

Ironbark Technology Ltd take no responsibility for any colour variations between different batches of tinted paint based products. Please ensure that you always order enough paint to complete the entire project. Refer to Appendix A of this manual for further information.

For further information on products and our New Zealand wide Distribution Network Phone (03) 456 4222 or visit www.supercoat.co.nz

Authorised Distributor

Ironbark Technology Ltd
75 Reid Rd, P.O. Box 2398
Dunedin, New Zealand.
Phone: +64 3 456 4222
www.supercoat.co.nz

For your nearest distributor of Supercoat™ Products
visit our website www.supercoat.co.nz