

Sto Specification New Zealand

SS901 StoColor Exterior Coating System on Masonry Surfaces

StoColor Coating System

For new exterior solid masonry surfaces



Sto Registration: To register your project with Stoanz Ltd please email the completed specification to info@sto.co.nz

1. PROJECT DETAILS

Specifier:

Project and Address:

Project Owner:

Sto Warranty: StoColor Coating System 7½ year Warranty with StoService Assurance

StoColor Exterior Coating System for solid masonry surfaces.

The specification details the application of the selected **StoColor Coating System** incorporating: Surface preparation, substrate repairs as required, finished in selected **StoColor façade paint** on exterior solid masonry surfaces.

Precast, Tilt panel Insitu Concrete, Brick

StoColor Maxicryl façade paint a matt durable coating or **StoColor Dryonic façade paint** – a new Biomimetic coating for faster drying after rain, incorporating, X-black temperature control, sun blocker and multi- surface use including timber.

Existing Surface: Precast Concrete, Tilt Panel, Insitu Concrete, Brick

Selected Coating:

Sto Registration Number:
(Sto Use Only)

i.e. 23.01_StoReg_tec_sales SS901_project address

Project Notes:

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2. CONSTRUCTION & DETAILING

2.1 Responsibility

All work in this section shall be the responsibility of the Main Contractor, unless previously agreed in writing. Stoanz Limited accepts no responsibility for defective workmanship in relation to the application of the Sto system, or for defects in the design, construction, or condition of the building, either as built or in relation to the works.

The Main Contractor is to ensure that they are fully conversant with exterior legislation requirements, the project documentation and details, current Sto Specification and Sto CAD details (www.sto.co.nz) and any specific precast concrete installation requirements relating to the Main Contractor's responsibilities before any works commence. The Main Contractor is also responsible for the various subcontractors to ensure that all items relating to weathertightness, penetrations and dissimilar material junctions affecting the construction system are strictly in accordance with project specific details, manufacturer's instructions and Sto CAD details i.e. items such as roofs, soffits, openings, lights and security fittings, electrical wiring, flashings, deck membranes, dissimilar junctions etc. that abut, flash or penetrate the system. The Main Contractor shall also ensure that all exterior licensed work is undertaken by LBP registered contractors and the joinery is installed in accordance with the project drawings, manufacturer's details and Sto CAD details. Building tolerances should be within MBIE Guide to tolerances.

A **Sto Quality Assurance Document** is to be filled out as a record of the work undertaken by the Sto Contractor.

2.2 Masonry Surfaces

The concrete / masonry installation including reinforcement shall be undertaken in strict accordance with the project drawings, specifications, and the precast concrete panel manufacturer's technical data. The walls shall be laid true in both vertical and horizontal planes with all joinery and service openings correctly formed and waterproofed in accordance with Sto details. Control joints must be installed as per the project's structural drawings or manufacturer's details to manage structural stress. It is recommended the ground floor slab junction should be rebated to provide a water stop, and interstorey floors should be poured within the structure leaving the outer shell to provide a continuous wall. At least 28 days shall be allowed after concrete placement as per CCANZ CP 01:2014, for curing and stabilisation to take place before commencing the Sto System. The exterior surface shall be clean, dry, and free of all surface contaminants and curing agents before commencing and the Main Contractor is to ensure that any areas or details adjacent to the Sto System have been adequately waterproofed or flashed to avoid any water migration.

2.3 Precast Concrete / Tilt Panel / Insitu Concrete / Brick - Construction

- A rebate is recommended in the concrete ground floor slab junction to form a weatherproof stop.
- Joinery openings should be formed using a recessed rebated 25mm step, so the joinery is set back, and the joinery flanges sit clear of the concrete openings.
- Vertical control joints are placed in accordance with the project structural drawings.
- Drying times vary according to materials, normally minimum 28 days is required for settlement and curing.
- Garden retaining walls must be waterproofed on the inside to avoid water migration.
- Wall caps are sealed with **Stoplex W** and receive 3 coats of **StoColor** façade paint.

2.4 Soffits

Soffits are normally fixed before the rendering commences with a 6-8 mm finishing bead of compatible MS Polymer Sealant applied after the mesh coat. The main contractor is to ensure any weatherproofing required on the walls

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behind the soffits or adjacent surfaces is carried out before the soffits are installed. Note: Water can penetrate the soffits. Ensure that the junction is waterproofed above and below the soffits.

3. SURFACE PREPARATION

3.1 Responsibility

All work in this section shall be the responsibility of the **Main Contractor** or his sub-contractors with the **Sto Contractor** responsible for the Sto detailing unless otherwise expressly agreed.

3.2 Aluminium joinery

All joinery should be fixed over selected StoColor coated reveals allowing for a 5 mm offset from the face of the rebate leaving a 5 mm gap at the sill prior to façade paint application. Sealing the joinery perimeter with MS Polymer Sealant at the head and jambs then forms the primary seal while the **sill** is left open with a 5 mm drainage gap. To complete the waterproofing process, **air seals** are required to be installed around all interior joinery to rebate openings.

Note: some types of joinery have drainage holes in the flange sill edges ensure these remain open

3.3 Sealant

All sealant junctions between the render and adjacent surfaces or dissimilar materials shall be jointed with compatible paintable **MS Polymer Sealant** applied in accordance with the manufacturer's Technical Data Sheets. Note some sealant manufacturers require primers for porous substrates, PVC's or dissimilar material junctions.

3.4 Detailing

All details must be in accordance with the project drawings or Sto details available from www.sto.co.nz.

3.5 Penetrations

Penetrations such as waste pipes and fixtures shall be adequately flashed and waterproofed prior to the coating application. **Note:** All penetrations through the render must be adequately sealed with MS Polymer Sealant applied as a minimum 6 mm sealant bead using PEF backing rod or Sto joint seal tape.

Any electrical wiring that penetrates the render shall be encased in an appropriately sized uPVC conduit installed at a minimum 5° downwards rake.

3.6 Foundations

All coated horizontal wall caps should have a minimum 5° fall to the inside.

Any exposed floor rebates should have been waterproofed with **StoFlexyl waterproofing** or similar brushed on.

Note: **StoFlexyl waterproofing** has been tested by BRANZ to **AS/NZS 4858** as required by **CCANZ CP 01:2014 and E2/AS1**.

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3.7 Chemical Treatment

All surfaces to be coated should be treated with a chemical solution to remove any fungal activity and any contaminants, including any existing oxidized powdery paint film. The properties for the removal of contaminants can vary depending on the various contaminants that may be present. Properties of the selected cleaner should include:

- Multipurpose cleaner for buildings
- Ready to use once diluted
- Safe on painted surfaces
- Removes dirt, mould, algae, lichen, oils and general atmospheric contaminants (such as exhaust fumes).
- pH neutral
- Biodegradable
- Compatible with water pressure cleaners
- Plant & Pet friendly

Note: Any areas with oil or grease type contaminants on the surface will require a water based solvent cleaner.

Ensure the stipulated reaction times are observed before washing off all residue during the cleaning process but generally try to remove the cleaner before it dries unless directed otherwise by chemical instructions.

3.8 Cleaning

All surfaces to be refurbished shall be water blasted with a commercial 3000 psi water blaster with sufficient pressure and volume to remove all residual contaminants including loose, friable material (without damaging the substrate), supplemented by hand or mechanical removal of any corrosion, loose or friable material to establish a sound, clean, load bearing surface.

Note: When cleaning with the water blaster, due care must be taken to avoid any damage to the building elements, dissimilar materials, or adjacent surfaces from excessive pressure or water ingress. Generally, the pressure is controlled by the distance (150-200 mm from the surface), the fan (20 – 40 degrees), and the pressure gauge.

4. COATING PREPARATION

4.1 General

Appropriate masking must be carried out prior to commencement of any coating work, protect all dissimilar materials and adjacent surfaces. All work shall be in accordance with the Sto specification, Sto Technical Data Sheets, or project specific documents. All surfaces to be refurbished must have been thoroughly cleaned and prepared before commencing.

4.2 Physical Damage & Substrate Repairs (In new work it constitutes a variation unless previously defined)

Repair any masonry panel damage or surface defects with the appropriate Sto Repair Mortar or Basecoat render and leave to dry before finishing with Stolit Milano finishing render or Precast Skim Render to match the surrounding profile taking care to blend the edges into the existing surfaces.

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4.3 Crack Repairs (In new work it constitutes a variation unless previously defined)

To clean dry walls, seal any cracks with a coat of **Stoplex W** and carefully apply **StoGold Filler** to fill the crack and leave to dry. If required apply a finishing render to level the repair ensuring the finish surface is feathered into the surrounding surface.

4.4 Sealant

All sealant is to be checked before commencing.

4.5 Parapets, Balustrades and Wall Caps

All coated horizontal wall caps should have a minimum 5° fall to the inside, be sealed with **Stoplex W** sealer and have three (3) coats of the selected StoColor facade paint applied

4.5 Dissimilar Materials

All dissimilar materials attached or adjacent to the wall surfaces to be painted such as fascias, gutters, rainwater heads, flashings, joinery, staircases, decks, timber work, pipes, vents, lights, security fittings, signs, etc. must be sound and secure.

The Contractor is required to ensure all the existing remediated surfaces are sound, loadbearing and waterproof before commencing any coating work.

5. STOCOLOR EXTERIOR COATING SYSTEM

5.1 Responsibility

All work in this section, including provision of external sealant beads and finishing system, shall be the responsibility of the **Sto Contractor** who must assure themselves that the surfaces to be coated are dry, free of contamination and satisfactory before commencing. Adequate protection of all adjacent surfaces shall be undertaken prior to starting.

5.2 Preparation

Check that all the cleaning, preparation, treatment, and remediation of the surfaces to be coated has been completed.

5.3 Materials

Stoanz Ltd supplies all the following materials:

| | |
|---|---|
| Stoplex W Sealer | StoGold Filler |
| Concrete Repair Mortar | StoFlexyl (meshed)waterproofing. |
| StoColor Dryonic facade paint or StoColor Maxicryl façade p[aint | Sto Renders |

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5.4 Sealer

All bare areas, wall caps, and repaired areas are to be coated with one (1) coat of **Sto Stoplex W** sealer by brush or roller at a spreading rate of approximately 10-14 m² per litre.

Once dry, overcoat any repairs with a patch coat of selected **StoColor façade paint** to ensure the surface profile is married into the surrounding surface so they blend in before commencing the coating system.

5.5 Selected StoColor façade paint

To clean, dry, prepared wall surfaces that have been repaired and patched to marry them into the existing surface finish are to be thoroughly checked before applying two (2) coats of **selected StoColor façade paint** thinned by up to a maximum 5% with clean fresh water. Check the product has been tinted to the selected colour before applying by brush and Sto roller at a spreading rate of 7-8 m² per litre per coat for smooth surfaces, leaving the first coat to dry overnight before applying the second coat.

Note: Before applying the topcoat, ensure the surface requires no intermediate work and maintain wet edges between rolling and brushing to avoid shadow lines.

6. GENERAL

6.1 Colour

As selected by the client or specifier, Stoanz Limited recommends that the selected colour should have a minimum Light Reflectance Value (LRV) of 15%. For colours under 15% but above 4% the render system is finished with two coats of **StoColor Dryonic façade paint with X-Black technology additive** to avoid thermal stress.

StoColor Dryonic façade paint with Sun blocker and fast dry film biomimetics is available in the StoColor range, other colours maybe available depending on formulation.

7. STOSERVICE ASSURANCE

7.1 StoService Assurance - Refer to StoService Document for a comprehensive guide.

The Sto Coating System should be cleaned annually by low pressure washing or hosing down with clean water to remove surface contaminants with special attention to sheltered areas (as required, use a proprietary house wash sprayed on first with a low-pressure garden spray in accordance with the manufactures instructions). Note refer to StoService Maintenance Documents online www.sto.co.nz.

After cleaning a visual inspection is to be undertaken by the owner or the person undertaking the maintenance to check for any physical damage or faults in the exterior building elements, to ensure any damage or defects are identified and repaired.

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To assist the property owner in establishing a regular maintenance cycle, the property owners email address can be registered with service@sto.co.nz. Stoanz Limited will then provide 2½ yearly reminder notices that the property is due to be serviced within the following six months.

Depending on the prevailing environmental conditions and the service record, recoating of the paint finish is normally required at the 10 – 12½ -years where two coats were applied to maintain long-term integrity. This is carried out using a **StoColor Coating System** applied in accordance with a Sto specification. Where a colour change is required, Stoanz Limited should be consulted.

8. WARRANTY

8.1 StoColor Coating System 7½ year Warranty with StoService Assurance

When the **Selected StoColor Coating System** is applied in accordance with the Sto specification, a warranty is available for the Sto System for seven half (7½) years from the date of practical completion, provided the StoService maintenance requirements as set out in the StoService documents are followed.

This is to comply with the relevant clauses in the New Zealand Building Code for this type of building element

The warranty is supplied by the Sto Contractor on completion of the project with the warranty issued and backed by Stoanz Limited as to the suitability of the material supplied provided that:

- (a) All specified work is carried out by a registered Sto Contractor who must complete and sign off the Sto Quality Assurance Schedule and the five-year PS3 Workmanship Warranty.
- (b) All work is carried out in accordance with this Specification, or any written amendments issued by Stoanz Limited.
- (c) The warranty does not cover situations where the coating system is subjected to physical disturbance, chemical spillage, structural stress, or interference.

9. DISCLAIMER

9.1 Disclaimer

The information contained in this specification is based on our findings, experience, testing and certification at the revision date. End users are still responsible for establishing the suitability of the specified products regarding their intended use. No liability is undertaken for use of this information outside of Stoanz Limited parameters or for the substrates, design, construction, and project site conditions that are outside of Stoanz Limited's control. Where a Sto registered contractor applies Stoanz purchased products in accordance with the Sto Specifications, Material Technical Data Sheets and Sto Details, a Sto Material Warranty document is available, but the installation of the materials remains the responsibility of the Sto Contractor who provides the PS3 Warranty. Any warranty is conditional on the system being maintained and serviced in accordance with the StoService documentation. Stoanz reserves the right to alter or update information and formulations at any time without prior notice.

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