

# Sto Specification New Zealand

## SS901R StoColor Dryonic Exterior Coating System

### StoColor Dryonic Biomimetic Coating System

To refurbish existing coated masonry or timber surfaces



**Sto Registration:** To register your project with Stoanz Ltd please email the completed specification to [info@sto.co.nz](mailto:info@sto.co.nz)

### 1. PROJECT DETAILS

**Specifier:**

**Project and Address:**

**Project Owner:**

**Sto Warranty:**

**StoColor Dryonic Coating System 7½ year Sto Warranty with StoService**

**StoColor Dryonic Exterior Coating System to refurbish existing coated masonry or timber surfaces (excluding timber joinery).**

The specification details the application of the **StoColor Dryonic Coating System** incorporating: Surface preparation, repairs, priming or sealing of all bare, or any friable surfaces using **Stoplex W (for masonry) or a timber primer** followed by **StoGold Fill** crack addressment, before coating in two coats of **StoColor Dryonic** façade paint over the existing painted or sealed surfaces.

**Areas to be coated:**

**Sto Registration Number:  
(Sto Use Only)**

i.e. 23.01\_StoReg\_tec\_sales SS901R\_project address

**Project Notes:**

**StoColor Dryonic Biomimetic façade paint with iQ technology incorporates:**

- Biomimetic principle for fastest drying after rain or dew formation
- X-black Technology keeps the temperature safely under +70 °C
- Colour shade stability with SunBlocker Technology
- Highly weather-resistant
- High level of resistance to mechanical stress
- Pure acrylate binding agent with non-drip additives
- Very good hiding power
- Water vapour permeable
- Encapsulated film protection
- Very good adhesion to all substrates commonly used in construction

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### 2. CONSTRUCTION & DETAILING

#### 2.1 Responsibility

The Sto refurbishment specification addresses the exterior condition of the existing surfaces only and specifically excludes all other building elements. It is the responsibility of the owner or their agent to ensure that all the existing building elements are weathertight, sound, load-bearing and free from any defects or contamination. Where there is a possibility of water ingress or structural defects, an appropriate building professional is required to verify the building elements are still sound before commencing.

Stoanz Ltd accepts no responsibility for defective workmanship in relationship 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 refurbishment works.

#### 2.2 Roofs and Decks

All existing roofs, fascia, and deck membranes adjoining or discharging into downpipes on the wall surfaces should be evaluated to ensure they are still sound, watertight and appropriately detailed with proper clearances, flashings, etc. Gutters, rainwater heads, scuppers and overflows are correctly detailed with flashings, drip edges diverters and upstands. Any items overlaying, fixed or adjacent to the walls must be secure, and watertight and have the appropriate cover and drip edges.

#### 2.3 Existing Joinery

All joinery must be watertight. All mitres, drain holes, vents etc. shall be checked to ensure they are working.

Where the joinery is leaking, a suitably qualified person shall be engaged to evaluate the joinery and undertake any necessary refurbishment work to ensure the window and door joinery mitres, mullions and drainage vents are sound, working and the refurbished joinery is watertight.

#### 2.4 Dissimilar Material Junctions, Flashings and Penetrations

Ensure all dissimilar material joints/junctions and penetrations such as pipes and service boxes are sound and watertight.

#### 2.5 Existing Building Condition

Where there is evidence of substrate failure or moisture ingress (blistering, staining, etc) the source of failure must be identified and the walls remediated before proceeding to ensure the substrate is dry, sound, and load-bearing.

**Note.** Any structural or weathertight issues need to be assessed by a registered Building Surveyor before commencing.

### 3. SURFACE PREPARATION

#### 3.1 Responsibility

All work in this section shall be the responsibility of the **Sto Contractor**, who shall ensure that they have a Health and Safety policy in place, any legislative requirements have been met and the surfaces are acceptable before commencing.

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Appropriate masking must be carried out prior to the commencement of any refurbishment work to protect any items in the vicinity including dissimilar materials and adjacent surfaces.

All work shall be in accordance with the Sto specification, Sto Technical Data Sheets, or project documents. All surfaces to be refurbished must have been thoroughly cleaned and prepared before commencing.

### 3.2 Fixtures and Fittings

All fittings and fixtures on the walls such as downpipes, rainwater heads, gas fittings, service boxes, handrails, taps etc. shall be checked to ensure they are secure and watertight. Any fittings that are easily removed should be taken off and refitted securely after the coating is finished.

**Note:** Penetrations such as pipes, wiring, security fittings and lights must be appropriately detailed with sealant.

### 3.3 Existing Exterior Surfaces

All existing wall surfaces must be checked to ensure they are sound, acceptable, and properly detailed before commencing. Delaminating material shall be removed, and the surfaces remediated as required. Where items overlay the wall surfaces, ensure that the surfaces have been adequately detailed to provide watertight junctions.

**Note:** Corroded, damaged, missing, or redundant fixtures or fittings need to be referred to the building owner or their representative for instructions/variation.

### 3.4 Existing Joinery

Check the joinery and existing perimeter junction sealant is sound. Cut out and replace any faulty sealant work with a compatible sealant.

### 3.5 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.

- 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 and 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 the cleaning product supplier.

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### 3.6 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.

### 3.7 Control Joints

Existing control joints are to be checked and any loose or delaminating seals removed and repaired as necessary in accordance with the sealant manufacturer's Technical Data Sheets.

### 3.8 Sealant

All new sealant beads associated with the cladding system shall be completed using a compatible **MS Sealant** applied in accordance with the manufacturer's Technical Data Sheets.

### 3.9 Existing Bituminous Coatings

Where there are bituminous coatings present, remove all delaminated, loose, friable material back to sound material. Carefully inspect the exposed substrate and surrounding surfaces for any signs of cracking and remediate once the exposed bituminous membrane has been sealed with a bituminous membrane primer.

## 4. REFURBISHMENT

### 4.1 General

Appropriate masking must be carried out prior to the commencement of any refurbishment work to 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.

**Note:** Where the walls are extensively cracked or spalling, it is recommended that the walls are checked by a Building Surveyor or Engineer before commencing the repairs or coating system.

### 4.2 Loose, Drummy or Spalling Plaster

Check the existing surface (normally audial tapping) to identify any areas of loose drummy plaster or spalling masonry associated with the exterior and mark up for removal. Remove the loose areas by diamond cutting around the perimeter as necessary, to stop the plaster delamination from spreading. Spalling masonry is to be removed back to a sound load-bearing substrate and any exposed reinforcing steel shall be cleaned to remove any corrosion before treating with a corrosion-inhibiting mortar applied in two coats. Once dry, repack the substrate with Stoanz 805 repair mortar finished with the applicable Sto finishing render to match the surrounding texture, taking care to blend the edges into the existing surface.

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### 4.3 Masonry Damage

Repair any damaged areas with the appropriate Sto repair or basecoat render and leave to dry before finishing with the applicable finishing render to match the surrounding texture, taking care to blend the edges into the existing surface.

### 4.4 Crack Repairs

To clean, dry, walls, seal any stable cracks up to 1.5 mm wide with a coat of **Stoplex W** and carefully apply **StoGold Fill** to fill the cracks and leave to dry. If required, apply a topcoat to level the repair ensuring the finished surface is feathered into the surrounding surface.

**Note:** Textured surfaces need to be carefully sponged to ensure the texture is not filled. Alternatively, re-texture to mask any repairs. Any fine fractures can be filled with **StoColor Dryonic facade paint** carefully applied in one or two coats.

### 4.5 Horizontal Concrete Sills, Ledgers, etc.

Existing concrete ledges, copings, etc. must have a fall to the exterior (no ponding) and be thoroughly cleaned. Bare surfaces or leaking ledges can be re-built as required to eliminate ponding and shall be waterproofed with **StoFlexyl meshed waterproofing** that is primed with two coats of **Sto Putzgrund** primer ready for coating or rendering.

### 4.6 Sealant

All existing sealant is to be checked and any defective sealant replaced with a compatible paintable sealant before commencing.

### 4.7 Masonry Parapets and Balustrades

Any cracked parapets, balustrades and wall caps should be flashed or be appropriately detailed with StoFlexyl meshed waterproofing that is then coated in two coats of Sto Putzgrund primer before painting.

Refurbish all existing flashings by removing any mild corrosion, and patch priming with a solvent-based galvanised steel primer before applying a full coat of galvanised steel primer to all metal surfaces followed by two coats of solvent-based gloss enamel.

**Note:** Any metal flashings that have rusted should be replaced with new metal flashings to match the existing. The flashing material shall be selected in accordance with NZBC Acceptable Solution E2/AS1 Table 20.

### 4.8 Masonry Foundations

Where there is evidence of rising damp or render delamination, the areas should be examined and StoFlexyl applied to waterproof the area concerned.

### 4.9 Timber Work and Dissimilar Materials

All dissimilar materials attached or adjacent to the wall surface to be painted such as timber weatherboards, timber cladding, exposed structural members, gutters, rainwater heads, flashings, pipes, vents, etc. must be sound and secure. Any items that are nominated to be recoated shall be primed with a metal anti-corrosive primer, AUP timber primer or a

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stain blocker before being coated in **StoColor Dryonic façade paint**.

### 4.10 Existing Joinery

Check all exterior joinery. Prepare, prime, re-putty and remediate as necessary. Remove any broken glazed panes before priming and applying a proprietary minimum 3-coat enamel finishing system.

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

## 5. STOCOLOR DRYONIC EXTERIOR COATING SYSTEM

### 5.1 Responsibility

All work in this section shall be the responsibility of the **Sto Contractor** who must assure themselves that adequate protection of all adjacent surfaces is still in place and all surfaces to be coated are dry, free of contamination and satisfactory before work commences.

### 5.2 Preparation

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

### 5.3 Materials

Stoanz Ltd supplies all the following materials:

<b>Stoplex W Sealer or APU timber primer</b>	<b>StoGold Filler</b>
<b>850 Repair Mortar</b>	<b>StoFlexyl (meshed)waterproofing</b>
<b>StoColor Dryonic facade paint</b>	<b>Sto Renders as required</b>

### 5.4 Sealer

All existing bare or powdery surfaces, or 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 m<sup>2</sup> per litre.

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

**Note:** Use an appropriate anti-corrosive metal primer on metal surfaces and apply APU timber primer on timber substrates.

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### 5.5 StoColor Dryonic Biomimetic Façade Paint

To clean, dry, prepared and primed/sealed surfaces that have been repaired and patch coated, apply two (2) full coats of **StoColor Dryonic Biomimetic** façade paint tinted to the selected colour by brush and Sto roller at a spreading rate of 7-8 m<sup>2</sup> 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 refurbished 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 has a minimum Light Reflectance Value (LRV) of 4% on masonry and on timber it is restricted to max temperature of 70 degrees when 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, with other colours available depending on formulation.

## 7. STOSERVICE ASSURANCE

### 7.1 StoServiceAssurance - Refer to StoService Document for a comprehensive guide.

Where accessible, 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, using a proprietary house wash sprayed on first with a low-pressure garden spray in accordance with the manufacturer's instructions. Refer to the StoService Maintenance Documents available online [www.sto.co.nz](http://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 and to ensure any damage or faults are identified and repaired.

To assist the property owner in establishing a regular maintenance cycle, the property owner's email address can be registered with [service@sto.co.nz](mailto: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 9-12½ years 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.

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### 8. WARRANTY

#### 8.1 StoColor Dryonic Biomimetic Coating System 7½ year Warranty with StoService Assurance

When the **StoColor Dryonic Biomimetic 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 maintenance requirements as set out in the StoService documents are followed.

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 Sto 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 and material Technical Data Sheets, a Sto Material Warranty document is available, but the installation of the materials remains the responsibility of the Sto Contractor who provides the PS3 Workmanship 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.