

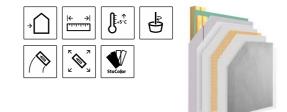
Sto Specification New Zealand

SS306E StoArmat Render System on EasyLap[™] Panel

StoArmat Render System

Over James Hardie EasyLap™ on timber/steel frame BRANZ Appraisal No.488 Sto Details <u>www.sto.co.nz</u>

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



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1. PROJECT DETAILS	
Specifier:	
Project and Address:	
Project Owner:	
Sto Warranty:	StoArmat Render System 15-year Warranty with StoService Assurance
StoArmat Render System on EasyLap™ fibre cement panel over timber/steel framed construction.	This specification details the application of the StoArmat Render System over 9 mm thick EasyLap™ Panels on a cavity over timber or steel framed construction complying with the NZBC incorporating: Sto Putzgrund primer, full coat of StoArma Classic meshed reinforcement render, <u>selected</u> Stolit coloured finishing render coated in <u>selected</u> StoColor facade paint.
	Note: The StoArmat Render System has passed the BRANZ Impact Test a maximum drop height with no damage being recorded. The Sto Armat render system includes 4 mm of malleable, weathertight polymer render.
Select Finishing Render:	
Select Facade Coating:	
Sto Registration Number: (Sto Use Only)	
	i.e. 21.01_StoReg_ tec_sales_SS306E_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 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 works or site conditions.

The Main Contractor is to ensure that they are fully conversant with exterior legislation requirements, the project specifications and details, the fibre cement panel manufacturer's documents, current Sto specification and Sto CAD details (www.sto.co.nz) and any specific installation requirements relating to the Main Contractor's responsibilities before any works commence. The Main Contractor is also responsible for the various sub-contractors 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 carried out by LBP registered contractors and the window and door joinery is installed in accordance with the project drawings, manufactures details and Sto CAD details. Building tolerances should be within MBIE Guide to tolerances.

In conjunction with an EasyLap[™] Panel installation QA a **Sto Quality Assurance Document** is to be filled out as a record of the work undertaken by the panel installer and Sto Contractor.

2.2 Timber Frame

Timber framing must comply with NZS 3604 for buildings or parts of a building within the scope limitations of NZS 3604. Buildings or parts of a building outside the scope of NZS 3604 must be to a specific design in accordance with NZS 3603 and AS/NZS 1170. Studs must be at maximum 600 mm centres in Low, Medium, High and Very High Wind Zones and maximum 400 mm centres for Extra High Wind Zones and specifically designed buildings. Dwangs must be fitted flush between the studs at maximum 800 mm centres when the studs are at 600 mm centres and 1200 mm centres when the studs are at 400 mm centres. All framing shall be true in vertical and horizontal planes with attention to intersections between top plate, floor joists and bottom plate in multi-storey construction. Adequate timber framing including blocking shall be provided by the Main Contractor to facilitate cladding fixings for the designated wind zone, membrane upstands, dissimilar materials, and exterior fixtures on the cladding.

Note: Framing must be installed in accordance with James Hardie Specifications and Details (eg: double studs at sheet joints).

The level of timber treatment shall be in accordance with NZBC Acceptable Solution B2/AS1. Generally, this will require a minimum treatment level of H1.2. The moisture content of the timber frame shall be no more than 24% prior to installing the cavity cladding system.

2.3 Steel Frame

Refer to James Hardie specifications for steel framing construction requirements.

2.4 Wall Insulation

NZBC Acceptable Solution H1/AS1 or NZBC Verification Method H1/VM1 can be used for housing, communal residential, communal non-residential and commercial buildings.

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The thermal design of the building must be calculated in accordance with NZS 4218. In accordance with NZS 4218 Table 2, the minimum R values for exterior walls in Climate Zone 1 and 2 shall be R1.9, and in Climate Zone 3 shall be R 2.0 when the other building elements (ceiling, floors, glazing, etc.) meet the requirements of NZS 4218 Table 2.

2.5 Wall Underlay

A flexible wall underlay is suitable for use in NZS 3604 Wind Zones up to, and including, Very High. A rigid wall underlay is required in the Extra High Wind Zone and specific design wind pressures.

Flexible wall underlays complying with NZBC Acceptable Solution E2/AS1, Table 23 shall be installed in accordance with the underlay manufacturer's instructions. The underlay shall be installed horizontally and be continuous around corners. The underlay must be lapped minimum 75 mm at horizontal joints, and minimum 150 mm over studs at vertical joints. Where studs are at greater than 450 mm centres, a wall underlay support must be installed over the underlay at maximum 300 mm centres horizontally (or additional vertical cavity battens can be installed) to prevent bulging of the underlay into the cavity space.

Generic rigid wall underlay materials shall be installed in accordance with E2/AS1 and be overlaid with a flexible wall underlay. Proprietary systems covered by a valid BRANZ Appraisal or CodeMark Certificate shall be installed in accordance with the manufacturer's instructions. Where rigid wall underlays are used, the fibre cement panel fixing length shall be increased by at least the thickness of the underlay.

Unlined gables or walls shall incorporate a rigid wall underlay or a flexible air barrier which meets the requirements of E2/AS1, Table 23.

Note: Ensure any items requiring fixing to the timber frame or items penetrating the wall underlay such as fixing brackets etc. are installed and flashing taped onto the wall underlay in accordance with E2/AS1.

2.6 Soffits

Soffits are normally fixed before the cladding is installed. The cladding cavity is closed off with cavity battens to provide support for cladding fixings and restrict air flow into the roof space.

2.7 Penetrations and Fittings - refer E2/AS1 Fig 68

Penetrations and fittings such as waste pipes, vents etc. shall slope to the exterior, be adequately supported by blocking and as required be sealed to the underlay with flexible flashing tape in accordance with E2/AS1 Fig 68, or with a proprietary penetration seal covered by a valid BRANZ Appraisal or CodeMark Certificate, prior to cladding installation. Exterior flange plates shall be installed as required around the penetration after the cladding has been installed.

Blocking must be installed for the fixing of taps, door hooks, lights, gas fittings, security alarms etc. Electrical wiring shall only penetrate the cladding and render system in a PVC conduit with a downwards rake of 5 degrees. MS sealant applied over a backing rod shall be used to seal around the conduit where it penetrates the cladding.

2.8 Aluminium Joinery

All joinery shall be detailed and fitted before the installation of the fibre cement cladding. Proprietary head flashings are supplied by the main contractor, shall extend minimum 20 mm past both joinery jambs, have stop ends in the cavity, a minimum 15-degree slope and be fixed prior to the installation of the fibre cement panel with flexible flashing tape securing the flashing upstand to the wall underlay.

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All window and door joinery shall be positioned 3-4 mm off the fibre cement panel to allow for the **StoArmat uPVC Jamb and Sill flashings** to clip into the joinery and be adhered in place. Refer to the project specific details and current StoArmat CAD details.

Note: The StoArmat sill flashing is cut 40 mm longer (20 mm each end) than the window, so it sits up under the jamb flashings with the sill back tab hook cut back 30 mm and the jambs tab hook cut back 8 mm, so it sits tight against the sill flashing (trim jamb/sill joinery rib to accommodate protruding screw heads). At the window head, the cavity is closed off with a uPVC vented cavity closure and a **Sto uPVC Clip On tray** is fitted over the fibre cement panel edge, (the back upstand can be snapped off) to achieve a straight line leaving a minimum 5 mm gap to the head flashing. A **Sto premeshed uPVC finishing edge** can be used but the panel edges and back edge should be pre-primed.

Note: Always refer to the **StoArmat Render System CAD** details or project specific details before commencing. Air seals are required to be fitted by the window installer or the main contractor in accordance with E2/AS1, Paragraph 9.1.6, and the main contractor is to supply the aluminium head flashings. **Sto uPVC Clip On trays** are normally supplied by the Sto Contractor and are fitted by the panel installer. On some joinery, the sill flanges have drainage holes under the sill flange; ensure they remain clear.

2.9 Control of External Fire

The specified Sto renders have been tested to EN 13501-1 and have achieved an A2-s1, d0 rating. The StoArmat Render System has been tested to ISO 5660.1 and achieved a peak heat release rate of less than 100 kW/m² and total heat released of less than 25 MJ/m². The system is therefore suitable for use on buildings at any distance to the relevant boundary.

3. EASYLAP[™] PANEL INSTALLATION

3.1 Responsibility

Unless expressly agreed otherwise, work in this section shall be the responsibility of the **Main Contractor**. The **Sto Contractor** is to allow for the **Sto uPVC flashings** required and provide them to the main contractor.

3.2 Soaker Strips, Flashings, Tapes, Control, and Interstorey Joints.

Soaker strips, flashings, tapes, and control and interstorey joints shall be set out as per the EasyLap[™] Panel Texture Coated Technical Specification from James Hardie, and where applicable the StoArmat details, and shall be correctly installed at the time of panel fixing.

3.3 Timber Cavity Battens

All exterior wall framing shall be battened using H3.1 treated timber cavity battens placed in accordance with the batten layout as set out in the fibre cement panel manufacturer's documents, with reference to the StoArmat Render System CAD details. A horizontal **vermin tray** shall be installed at the bottom of the cavity (minimum opening/ventilation area of 1000 mm² per lineal metre).

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Cavity battens shall be installed over the wall underlay to the wall frame at maximum 600 mm centres where studs are at 600 mm centres (300 mm centres when the cavity batten is being used to support a flexible wall underlay), or at 400 mm centres, where the studs are at 400 mm centres.

The timber studs shall receive a cavity batten to the full length of the stud, preferably in one continuous length. Should joints be necessary, they should be tight butted with a gap occurring at interstorey floor junctions in accordance with the EasyLap™ Technical Specification.

The cladding cavity is closed off at the top of the wall with a horizontal batten or a soffit plate on dwangs. Where studs are at 600 mm centres and there is no intermediate vertical batten, horizontal packers with a minimum 5° slope and minimum 50 mm gap to the vertical battens are required on the bottom plate and dwangs. Additional battens or packers may also be required at openings and detailing for fixings as per the EasyLap[™] batten layout.

Note: Framing set out and fixing must comply with the EasyLap[™] Panel manufacturer's details, technical data, QA and specifications.

3.4 9.0 mm EasyLap[™] Panels

The EasyLap[™] cladding shall be installed in accordance with the details and instructions contained in the EasyLap[™] Panel Texture Coated Technical Specification from James Hardie using their QA schedule. Before starting, check framing is true and straight in both horizontal and vertical planes and take care to ensure that nailing patterns are maintained, and panel edges are not damaged during panel installation. Where panels are to be continued over interstorey junctions, care shall be taken that the horizontal and vertical planes are maintained. The panels must hang down minimum 35 mm past the cavity batten for the **StoArmat ClipOn tray**. As required, the ClipOn back can snap off to accommodate 15 mm overhang at window heads etc.

Note: If panel fixing and layout is doubtful, a James Hardie Representative should be contacted for a site inspection and approval before any render work is undertaken.

3.5 Horizontal Sheet Joints (not control or inter-storey joints)

Where a wall height (with continuous studs) is taller than the standard panel height, horizontal EasyLap[™] Panel edges shall be rebated on site to create a rebated joint.

Note: Rebated horizontal joints must not be used at floor joists or gable ends. Refer to Paragraph 3.6 below.

3.6 Vertical Sheet Joints (not control joints)

When installing the sheets all vertical sheet joints shall be bedded in a continuous bead of adhesive sealant.

3.7 Control and Inter-Storey Joints

All control and interstorey joints as designated by the project documentation and drawings or EasyLap[™] Panel Texture Coated Technical Specification from James Hardie must be followed. Refer to the StoArmat CAD details for specific control joint design details. Vertical control joints are required to be placed at maximum 5.4 m centres or as specifically detailed. Horizontal control joints are required at interstorey junctions or every 5.4 m vertically on continuous studs. Continuous cavity heights are limited to the lesser of 2-storeys or 7 m in height before an inter-storey drained flashing joint is required.

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Note: Sto uPVC 8 mm flexible vertical control joints and Sto 12 mm interstorey joints, StoArmat ClipOn trays and StoArmat Joinery flashings are available from Stoanz Limited for control joints, interstorey joints and joinery flashings.

3.8 Fixings

Ensure that all fixings as specified by James Hardie have the appropriate corrosion resistance, are correctly sized and securely fastened without over driving the fixings into the panel.

3.9 Back Priming

Back-priming of panels must be carried out in accordance with the panel manufacturer's requirements. The Main Contractor shall be responsible for back priming of panels with an acrylic primer prior to their installation.

3.10 Sealant Beads

All sealant associated with the system shall be a compatible **MS Sealant** applied in accordance with the manufacturer's Technical Data Sheet.

Note: Some manufacturers require primers for dissimilar materials.

3.11 Surface Cleaning

The Contractor shall ensure that all contaminants and dust are removed from the panel surfaces before rendering.

3.12 Balustrade Caps (Note: Metal caps are required on parapets)

Any horizontal rendered surfaces must have a minimum 10° fall and have **StoFlexyl waterproofing** membrane installed. On **balustrades**, **StoFlexyl** must be correctly mixed (drill mix 1:1 with **fresh** cement) and applied with a layer of Sto mesh embedded into the **StoFlexyl**, which is then floated to a level surface attaining a total minimum film thickness of 1.5 mm. Extend the membrane 75 mm up or down adjacent vertical surfaces (see StoArmat CAD details) and allow to dry overnight. All **StoFlexyl waterproofing** is to be over coated in **StoArmat** meshed reinforcement render.

Note: StoFlexyl meshed waterproofing has been evaluated by BRANZ to meet the waterproof membrane requirements of **AS/NZS 4858** as required by E2/AS1 for membranes used with render systems.

Note: E2/AS1 compliant metal cap flashings are required on parapet tops.

3.13 Architectural Shapes and Profiles

Architectural shapes used to create decorative detailing shall be correctly cut to size and fitted using **StoFlexyl adhesive** notch towelled to the back of the shape prior to placing. As required, construction fixings are used to mechanically fix large or heavy shapes, but care is required to avoid distortion. Joints are butted together using **StoFlexyl**, with any control joints mirrored through the profile. Profiles shall be pre-meshed or receive a **StoArmat** mesh coat and are placed over the **StoArmat render** mesh coat with the perimeter edges meshed to the wall unless a gap is required along the bottom edge, e.g., where the profile covers a control or interstorey joint.

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4. STOARMAT RENDER SYSTEM

4.1 Responsibility

All work in this section shall be the responsibility of the **Sto Contractor** who must assure themselves that the surfaces to be rendered are dry, free of contamination and satisfactory before work commences. Adequate protection of all adjacent surfaces shall be undertaken prior to commencing.

Note: Ensure the surfaces of all EasyLap[™] Panels have been cleaned before commencing.

4.2 Selection

Rendering shall be carried out in stages over correctly installed and detailed panels incorporating: **Sto Putzgrund primer**, **StoArmat Classic** mesh reinforced render, and the <u>selected</u> **Stolit** coloured finishing render coated with the <u>selected</u> **StoColor** facade paint or **S-Protect SC sealer** for selected MP or Milano.

4.3 Materials

Stoanz Ltd supplies all the following materials:

Sto Putzgrund primer	StoArmat Classic meshed reinforcement render
Selected Stolit coloured finishing renders	Sto uPVC ClipOn trays, pre-meshed corner angles, finishing edges and drip edges.
Selected StoColor facade paint or S-Protect sealer	StoFlexyl waterproofing

4.4 Panel Priming

Apply one full coat of **Sto Putzgrund** by brush or roller at the approximate spreading rate of 7-8 m² per litre to the total surface area to be rendered ensuring all rebated panel joints are coated.

4.5 Sto uPVC Flashings

The **Sto uPVC ClipOn tray** is used to align the bottom edge of the fibre cement panels at the foundations, roofs, decks, window heads and anywhere the panels require a bottom tray. The trays are adhered in place with construction adhesive. If required, the back upstand has a 15 mm tear mark to enable fitting behind the panels with reduced clearance, e.g., at window joinery heads.

StoArmat uPVC Joinery flashings are used to flash joinery jambs and sills, unless an Inseal tape has been used behind the joinery. Interstorey joints are detailed as per the panel manufacturer's details and a **Sto uPVC 12mm interstorey control joint** is used to cover the panel joint as per the **Sto CAD** details. Alternatively, an Architectural profile can be used over a flashing or H mould joint.

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4.6 Control Joints

Control or interstorey joints as designated by the project drawings or panel manufacturer's technical data must be followed. Control joints must be installed in the **StoArmat** mesh coat using the **Sto uPVC 8.0 mm vertical control joints** or **12 mm interstorey joints** ensuring the mesh coat does not overlay the joint.

4.7 Vertical Panel Joints

Joints in the cladding panels are filled using **StoArmat Classic** ensuring the joint is level with the surrounding panel surface before leaving to dry overnight.

4.8 Rebated Horizontal Panel Joints

Rebated horizontal joints in the EasyLap[™] Panels are filled using **StoArmat Classic** reinforced with **Sto Jointing Tape** embedded into the **StoArmat render**, ensuring the joint is level with the surrounding sheet surface before leaving to dry overnight.

4.9 StoArmat Classic Reinforcement Render Note: StoArmat Classic HD with hardener for accelerated drying in cold damp weather are also available.

To clean, dry, jointed, and primed surfaces, apply an even coat of **StoArmat Classic** render by hawk and trowel at approximately 2.0 mm thick. While the **StoArmat Classic** is still wet, lightly apply **Sto reinforcing mesh** ensuring adjacent drops of mesh are overlapped by a minimum 75 mm and float the surface to ensure the mesh has been embedded in and allow to dry. Once dry, apply a further coat of **StoArmat Classic** at approximately 1.5 mm thick (minimum overall DFT 2.5 mm) by hawk and trowel to cover the mesh and leave an even surface free of voids or deviations.

Once dry, remove any slight ridging etc. of the **StoArmat Classic** with a Sto rasp ready for subsequent top coating. All application procedures for the **StoArmat** must be in accordance with the Sto Technical Data Sheets. Always install **Sto pre-meshed uPVC edges** on lintels, **Sto pre-meshed** corner angles on external corners and **Sto pre-meshed finishing edges** as detailed.

4.10 Sealant Installation

All junctions or detailing between the render mesh coat and dissimilar materials shall be sealed with compatible exterior MS Sealant in accordance with the manufacturer's Technical Data Sheets.

Note: Some manufacturer's require primers for PVC or porous substrates.

Note: Where sealant is being applied directly over StoFlexyl waterproofing, the StoFlexyl must be primed to promote adhesion in accordance with the sealant manufacturer's instructions. The joinery sills must remain unsealed and open to permit ventilation of the window trim cavity.

4.11 Stolit Float Finish Renders (refer to header for selected finish) Stolit K texture is available in a flat 1.0, - 1.5, 2.0, 3.0 mm aggregate as selected.

• Stolit K coloured finishing render as selected

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Apply the selected **Stolit K** coloured finishing render to prepared rendered surfaces with a stainless-steel trowel, gauging to the thickness of the aggregate size. Finish with a plastic float to the requisite pattern and allow to dry (normally overnight). The spreading rate shall be approximately 12 m² per pail (1.0 mm), 9 m² per pail (1.5 mm), 7 m² per pail (2.0 mm) and 4 m² per pail (3.0 mm).

• StoColor façade paint

All **Stolit K** surfaces require a minimum one (1) coat of **StoColor** façade paint (note two (2) coats will extend the recoat period), tinted to the selected colour and applied by brush and roller at approximately 6-7 m² per litre per coat. **Note:** Always maintain wet edges between cutting in and roll in tight to ensure an even film build is maintained. Refer to **Section 6 StoService Assurance** for maintenance and recoating requirements.

- 4.10 Selected Stolit MP Finished Renders (refer to front page for selected finish) Stolit MP fine coloured finish, MP Natural salt & pepper sand, RMP Sponge coarser salt & pepper sand
- Selected Stolit MP, MP Natural, and RMP Sponge coloured finishing render

Stolit MP fine, MP Natural sandy and RMP Sponge sandy are coloured finishing renders applied in two (2) coats. A basecoat of the selected Stolit MP or alternatively, depending on the finish, Stolit K 1.0 mm tinted to the selected colour, is applied, and allowed to dry. The finishing coat of Stolit MP, MP Natural, or RMP Sponge is then applied, float finished and randomly lightly sponged. Alternatively, the finish can be float finished, sponged, or smooth finished with a S/S Marmorino trowel to the selected pattern. The spreading rate of the Stolit MP, MP Natural or RMP Sponge is approximately 12-14 m² per pail.

• S-Protect SC Stay Clean Invisible Silane Sealer (clear sealer)

To selected **Stolit MP**, apply an even coat of **S-Protect SC stay clean** hydrophobic sealer (clear invisible silane sealer) in a flood coat using a low-pressure sprayer and Sto block brush to work the product into the Stolit render, avoiding runs, and brushing in any lingering drips etc. so they don't show up. Surfaces must be well coated, and it is recommended to work in a pattern preferably out of the sun to ensure that there are no misses as the sealer is invisible once dry.

Note: All joinery, glazing and adjacent surfaces must be masked off to prevent the **S-Protect SC Stay Clean** contaminating the surfaces. Any excess product must be removed after 15 minutes to avoid a surface film forming that can be difficult to remove. Refer **Section 6. StoService Assurance** for recoating requirements.

• StoColor façade paint (paint finish if selected)

Stolit MP surfaces require one (1) or two (2) coats of **StoColor** façade paint tinted to the selected colour and applied by brush and roller at approximately 6-7 m² per litre per coat.

Note: Always maintain wet edges between cutting in and roll in tight to ensure an even film build is maintained. Refer **Section 6 StoService Assurance** for maintenance and recoating requirements.

4.13 Stolit Smooth Finish Render

• Stolit Milano coloured finishing render

Stolit Milano is a smooth pre-coloured finish applied in two (2) or three (3) coats. A basecoat of Stolit Milano tinted to the selected colour is applied and allowed to dry before the finishing coats of Stolit Milano are applied and steel troweled,

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floated or lightly randomly sponged to the selected pattern. The spreading rate of the Stolit Milano is approximately 16-18 m² per pail.

• S-Protect SC Stay Clean Invisible Silane Sealer (clear sealer)

To **Stolit Milano**, apply an even coat of **S-Protect SC stay clean** hydrophobic sealer (clear invisible silane sealer) in a flood coat using a low-pressure sprayer and Sto block brush to work the product into the Stolit render, avoiding runs and brushing in any lingering drips etc. so they don't show up. Surfaces must be well coated, and it is recommended to work in a pattern preferably out of the sun to ensure that there are no misses as the sealer is invisible once dry.

Note: All joinery, glazing and adjacent surfaces must be masked off to prevent the **S-Protect SC Stay Clean** contaminating the surfaces. Any excess product must be removed after 15 minutes to avoid a surface film forming that can be difficult to remove. Refer **Section 6. StoService Assurance** for recoating requirements.

5. GENERAL NOTES

5.1 Colour

As selected by the client or specifier. Stoanz Limited recommends that the selected colour must have a minimum Light Reflectance Value (LRV) of 35%. Where a colour less than 35% LRV but not less than 25% is selected two coats of **StoColor X-black** heat reflective façade paint is required. Colours selected below the recommended values will affect the warranty.

Note: StoColor X-black is only available on the StoColor range.

6. STOSERVICE ASSURANCE

6.1 StoService Assurance - Refer to StoService Assurance Schedule for comprehensive guide

The Sto Render System shall be cleaned annually by low pressure washing or hosing down 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).

An annual visual inspection is to be undertaken by the owner or their agent to check for any physical damage or defects in the exterior building elements, to ensure any damage or defects are identified and repaired. Every 2½ years, the building occupier will be notified to engage the Sto Contractor to carry out a StoService inspection within the following six months. On completion, the Sto Contractor will issue a StoService Certificate that will be recorded in the Sto Warranty information, so a long-term record of the service history is maintained.

Depending on the environment and the service record, recoating of the paint finish is normally required at the $7\frac{1}{2}$ year period where one coat of paint was applied, or $10-12\frac{1}{2}$ 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.

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Recoating of S-Protect SC is required at the 7¹/₂ year period depending on the environmental conditions and the service record. This is to be carried out using **S-Protect SC** applied in accordance with a Sto specification.

7. WARRANTY

7.1 StoArmat 15-year Warranty with StoService Assurance

When the **StoArmat Render System** is applied in accordance with the Sto specification, Sto details and Sto PS3 Quality Assurance schedule, a warranty is available for the Sto System for fifteen (15) years from the date of practical completion. This is to comply with the relevant clauses in the New Zealand Building Code being B2 Durability, E2 External Moisture and F2 Hazardous Building Materials for this type of building element provided maintenance and service requirements as set out in the StoService Assurance documents are followed.

The fifteen (15) year warranty is supplied by the Sto Contractor on completion of the project and remains valid when serviced and signed off by the Sto Contractor in accordance with the StoService Assurance program. The warranty is 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 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 Render system is subjected to physical disturbance, chemical contamination, structural movement, or interference.

8. DISCLAIMER

8.1 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