



## STO BRICK BAG WASH SPECIFICATION

### STO BRICK BAG WASH PLASTER OVER NEW / OLD BRICK CONSTRUCTION

Based on BRANZ Appraisal No 515 - ACAD Details [www.sto.co.nz](http://www.sto.co.nz) building with Sto

#### Project:

#### Prepared for:

#### Sto Brick Bag Wash Plaster System

This specification is for the application of the **Sto Brick Bag Wash Plaster System** incorporating; **S-Protect WS 405** sealer, bag washed in **Stolit MP, MP Natural or Sto RFP Sponge** coloured finishing render coated with **StoColor Maxicryl** façade paint sealer on brick construction.

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## 1. NEW CONSTRUCTION

### Responsibility

All work in this section shall be the responsibility of the Main Contractor, unless otherwise expressly agreed. The Main Contractor is to ensure that he or she is fully conversant with all Sto Standard installation and fixing details (see [www.sto.co.nz](http://www.sto.co.nz) – Building with Sto) and the Main Contractor's responsibilities before works commence. The Main Contractor is to be responsible for all liaison with the various sub contractors to ensure that all items relating to weather tightness of joints and connections affecting the Sto Plaster System are strictly in accordance with Sto ACAD standard or project specific details, i.e. items such as electrical wiring, flashings, trays etc or any items that flash or penetrate the Sto Plaster System. The main contractor shall be responsible for ensuring all exterior joinery is installed in accordance with Sto details by others, but before the plaster system has commenced.

### 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 NZS 4203 (AS/NZS 1170). Studs must be at maximum 600 mm centres in Low, Medium, High and Very High Building Wind Zones and maximum 400 mm centres for specifically designed buildings. Dwargs must be fitted flush between the studs at maximum 800 mm centres. All framing shall be true in vertical and horizontal planes with particular attention to intersections of top plate/floor joists/bottom plate in multi-storey construction. Adequate timber framing/blocking shall be provided by the Main Contractor/Builder to facilitate membrane up stands, dissimilar surfaces and exterior fixtures. The timber grade and level of treatment shall be in accordance with the latest requirements contained in NZS: 3602 generally, this will require a minimum treatment level of H1.2. with a moisture content of the timber frame at no more than 24%.

### 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. For buildings with a glazing area of 30% or less of the total wall area, the minimum wall R-values required for non-solid construction are: Climate Zone 1 & 2 – R 1.9 and Climate Zone 3 – R 2.0.

The Thermal resistance of building elements may be verified by using NZS 4214. The BRANZ House Insulation Guide Third Edition provides thermal resistances of common building elements and is based on calculations from NZS 4214. Calculations in accordance with NZS 4214 require that the ventilated air gap and the thermal resistance of each layer between the ventilated air gap and the outside air be de-rated by 45%.

### **Building Wrap**

A cavity suitable Building Wrap shall be installed in strict accordance with the Manufacturers recommendations. The Building Wrap shall always be returned into the recesses of all openings and double lapped and taped as per E2/AS1, WANZ or a BRANZ appraised wrap specification.

### **Aluminum Joinery**

The Aluminium joinery shall be fixed before the instillation of the bricks positioned between 10mm and 20mm into the brick reveal line. And weather proofed in accordance with the manufacturers details.

### **Exterior Brick Veneer**

The Exterior Brick Veneer installation, including reinforcement, ties, weep holes and mortar joints shall be made in accordance with the project specifications, drawings, applicable E2/AS1 details and manufactures specifications. In particular the bricks shall be laid true, in both vertical and horizontal planes, with all joinery and services cut outs correctly made including galvanised lintels set back 15/20mm as required. Mortar joints should be 10mm+/-2mm with the bricks squared off the foundation on a mortar course of up to 20mm. To prevent cracking install snake wire reinforcing at 800 centre's on corners, above large joinery openings, across narrow widths and at stress points. The manufactures required curing time (normally 5/7days weather dependant) shall be allowed after placement, for curing and stabilization to take place, before application of the Sto Plaster System. All maximum tolerances shall be in strict accordance with NZS 4210: 2001 2.7.1.4 Table 2.2, i.e. No more than 3mm surface alignment deviation over a 1200mm radius. The render bricks shall be clean and free of all surface contaminants before plaster commences and shall be cured enough to accept the plaster. The Main Contractor is to ensure that any areas or details adjacent to the Sto Plaster System have been adequately waterproofed / flashed to avoid any water migration behind the Sto Plaster System. All mortar joints and brick set out are to be finished in accordance with the project details to achieve the bag wash effect required.

### **Sealant**

All junctions between the brick and adjacent dissimilar surfaces shall be flashed and sealed using **MS Sealant** when using in conjunction with the Sto Plaster System. The sealant must be applied in accordance with the manufactures TDS sheet and instructions.

### **Penetrations**

Penetrations such as waste pipes and fixing brackets shall be in accordance with E2AS1 fig 68. All penetrations through the Sto Plaster system shall be adequately sealed using MS Sealant. All electrical wiring etc shall only penetrate the Sto plaster system with the appropriate sized uPVC conduit installed at minimum 5° down wards rake. Any plumbing piping should be set at a downwards rake and must be sealed using MS Sealant before plastering.

**NOTE: MAIN CONTRACTOR & ALL SUB TRADES INVOLVED IN ANY EXTERIOR WORK  
All details must be in strict accordance with Sto standard or project specific CAD details**

## **2. STO BAG WASH PLASTER SYSTEM**

### **Responsibility**

All work in this section shall be the responsibility of the **Sto Applicator** up to and including provision of plaster, sealant beads and coating system. The **Sto Applicator** shall satisfy themselves that the surface is satisfactory before proceeding with any plastering.

The information contained in this Specification is based on our experience and testing and represents the latest information available at the date of production. No responsibility is taken for uses to which this information may be put, but we advise that where application of products and processes is in complete conformity with this specification an appropriate warranty is available. We reserve the right to alter or update information parameters and formulations at any time without prior notice.

### Existing Brick Surfaces - Moss Kill Treatment

All existing surfaces to be refurbished shall be treated with a chemical solution to kill all moss and mould spores ensuring the stipulated kill times are observed before commencing.

### Existing Brick Surfaces - Cleaning

All existing surfaces to be refurbished shall be water blasted using a 3000psi machine to remove all contaminants and debris supplemented by removing any loose or friable coatings, texture, etc to establish a clean sound substrate. Cracks or failed joints are to be striped out as necessary to remove all defective material and any coatings that are adhesion impairing will require removal.

**Note:** When using a water blaster due care must be taken to avoid the surface, other building elements or adjacent surfaces being damaged from excessive water pressure.

### Materials

Stoanz Ltd supplies all the following materials:

**S-Protect WS 405** sealer

**Stolit MP, MP Natural or Sto RFP Sponge** coloured finishing render

**StoColor Maxicryl** façade paint

### General

Installation shall be carried out in stages incorporating; **S-Protect WS 405** sealer, bag washed with selected **Stolit MP, MP Natural or Sto RFP Sponge** coloured finishing render coated with **StoColor Maxicryl** façade paint.

### Preparation

Before commencing **ensure the brick wall surfaces are clean and dry, the pointing is tight and any flashings, timber overlays, parapets or joinery rebates are completely waterproofed.**

Masking must be undertaken to protect all adjacent surfaces from splashes etc.

### S-Protect WS405 Silane Sealer

To cured, dry, clean exterior brick surfaces apply a double flood coat of **S-Protect WS 405 Silane** at 4 – 5sqm per litre applied with low-pressure garden sprayer and block brush and allow to dry **minimum 2 hours** before applying a second coat and **then leave a minimum 5 days** for full catalysis reaction all in accordance with the manufactures TDS sheets before applying the **Sto Bag Wash System**.

### Sealant Installation:

After the primer has dried, all junctions between joinery/adjacent surfaces/dissimilar materials junctions and render system and around penetrations details shall be sealed with **MS Sealant** in accordance with the manufactures TDS sheets before rendering.

### Sto Bag Wash Plaster Finish Selected

**Stolit MP** - Coloured fine grain plaster

**Stolit MP Natural** - Coloured fine grain plaster with exposed salt and pepper granule

**Sto RFP Sponge** - Coloured courser grained plaster

### Sto Bag Wash finish coloured finishing render

To clean dry primed surfaces applied two (2) coats of **selected coloured finishing render** thinned to a workable consistency using a block brush, sacking or trowel and sponge to achieve the requisite random pattern and allow the first coat to dry before applying the second finishing coat.

### StoColor Maxicryl façade paint

All bag washed surfaces shall receive one (1) full coat of **StoColor Maxicryl** façade paint tinted to the selected colour and applied by brush and roller at approximately 6/7 m<sup>2</sup> per litre.

**Note:** Always maintain wet edges between cutting in and rolling tight to achieve an even film build.

**Alternatively Apply S-Protect SC stay clean sealer**

**S-Protect SC stay clean sealer**

To clean dry **Sto Bag Washed** surfaces apply a flood coat of **S-Protect SC stay clean sealer** at 7/10 square metres per litre depending on the profile applied with low-pressure nap pack sprayer and block brush in one full flood coat using the brush to work into the surface and remove any lingering droplets all in accordance with the TDS Sheets taking care to avoid spills onto dissimilar materials.

**Note: Glazing ensure all glass surfaces are completely masked** to prevent damage.

**3. GENERAL NOTES**

**Colour & Finish**

Colour as selected by Architect or client with a recommended minimum light reflectance value of 20% The applicator should prepare a sample for approval before main works commence.

**4. MAINTENANCE**

**Refer; Sto Maintenance Schedule for comprehensive guide**

The Sto Plaster System must be cleaned annually by washing to remove all existing surface contaminants with special attention to non-rain washed areas. When recoating is required at the 6/8-year period to maintain long-term integrity and a pristine condition this can be carried out using Sto Coating over a cleaned surface. Physical damage must be repaired using the appropriate Sto Plaster materials as required. Where a colour change is required, Stoanz Limited should be consulted for a specific specification.

Annual inspections are to be implemented after completion to clearly identify any faults in the cladding, sealant beads, flashings and any other connections. A repair process must be implemented immediately to address any faults so the long-term warranty is not compromised.

**6. WARRANTY**

The **Sto Bag Wash Plaster System** described in this specification is warranted for a period of ten (10) years from the date of practical completion. This is to comply with the relevant clauses in the New Zealand Building Code; **B2 Durability, E2 External Moisture** and **F2 Hazardous Building Material** for this type of building element provided normal maintenance requirements as set out in the Sto Maintenance Schedule are followed. The system warranty shall be provided by the Applicator upon reaching practical completion of the project.

The warranty is supplied by the Sto Applicator and includes a five (5) year workmanship warranty signed by the Sto Applicator carrying out the work. The warranty is issued and backed by the Stoanz Limited as to the quality of the material supplied provided that;

- (a) All specified work is carried out by the approved Sto Applicator who must complete and sign the Sto QA Compliance Procedure Forms and a PS3 Workmanship Warranty
- (b) All work is carried out in accordance with this Specification or any written amendments issued by the Manufacturers.
- (c) The warranty does not cover situations where the plaster system is subjected to physical disturbance, chemical spillage or interference.



The information contained in this Specification is based on our experience and testing and represents the latest information available at the date of production. No responsibility is taken for uses to which this information may be put, but we advise that where application of products and processes is in complete conformity with this specification an appropriate warranty is available. We reserve the right to alter or update information parameters and formulations at any time without prior notice.