

## **S-PROTECT BHN SILANE PROTECTION TREATMENT**

### **S-PROTECT BHN SILANE SYSTEM FOR PRECAST & INSITU CONCRETE**

**Project:** To Be Advised

**Prepared for:** To Be Advised

#### **S-Protect BHN Silane treatment finished in S-Protect SC stay clean or S-Protect Anti Graffiti SP**

This specification is for the application of the **S-Protect Silane System** a Silane Hydrophobation for the exterior treatment of Precast or Insitu Concrete surfaces to achieve an invisible durable protection barrier using

**S-Protect BHN Silane treatment** finished in **S-Protect SC stay clean or S-Protect Anti Graffiti SP** that keep the surface clean by preventing the adhesion of contaminates and graffiti in the case of **S-Protect SP** that can be removed by cleaning.

**Note: S-Protect BHN** with a 98% concentration has a history of proven performance as demonstrated world wide on numerous landmark projects; 1991 Sydney Opera House, 2003 Louvre Museum, 1998 Storebelt Bridge Denmark, 1986 Frankfurt Opera House, 1985 Military Museum Vienna, 2008 Hang Zhou Bridge China.

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## **NEW & EXISTING SURFACES**

### **Surfaces Preparation**

All new or existing concrete wall surfaces to be treated must be sound and in good condition, as necessary check all dissimilar material joints, replace sealant joints as necessary, repair damaged elements or cracks and check flashings and joinery junctions. If the surface has been previously coated or sealed with a clear coating consult your technical representative before proceeding.

### **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.

### **Cleaning**

All surfaces to be refurbished shall be water and chemically cleaned to remove all contaminates and debris supplemented by hand cleaning as necessary to establish a clean sound substrate.

**Note:** If using a water blaster due care must be taken to avoid surface, other building elements or adjacent surfaces being damaged from excessive water pressure. Where the surfaces need specialist cleaning, honing or grinding to achieve the required surface finish this is to be **undertaken and priced separately** to the work specified.

### **Horizontal Surfaces**

S-Protect Silane System is a protection system for masonry surfaces parapet tops, horizontal caps and ledges must have a fall to shed water. The system is not suitable for waterproofing masonry roofs or deck surfaces that require a waterproof membrane system.

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## S-PROTECT SILANE SYSTEM

### General

All new work in this section shall be the responsibility of Sto Contractor. Ensure dissimilar materials and all glazing elements are well masked off with plastic when applying S-Protect SC or SP finishing treatment to avoid damage to any glass.

### S-Protect BHN Silane Treatment

To clean dry surfaces apply one (1) flood coat of **S-Protect BHN Silane** at 5 - 7 square metres per litre depending on porosity (150 - 200ml sqm) of the surface being treated applied with a low-pressure garden sprayer and block brush to remove any lingering droplets. **Note:** The finished **S-Protect BHN** sealed surfaces must be **left five (5) days to fully catalyze** before proceeding with the **S-Protect SC or SP** finishing. All **S-Protect BHN** must be applied in accordance with the TDS Sheet. A low pressure sprayer can be used but a Silane pump is recommended and atomisation at the tip must be avoided.

### S-Protect SC Stay Clean Sealer as delineated on drawings

To clean dry catalyzed BHN treated surfaces apply a flood coat of **S-Protect SC Stay Clean Sealer** at 8/10 square metres per litre depending on the substrate applied with low-pressure garden sprayer or brush and roller for small areas in one full flood coat using a block brush to dispel any lingering droplets all in accordance with the TDS Sheets. **Note: Glazing - S-Protect Anti Graffiti SP & SC stay clean** can effect glass **ensure all exposed glass surfaces are completely masked off** to prevent damage

### Delineation of SP Anti Graffiti Surfaces

**Note:** The **SP Anti Graffiti Surfaces** are normally restricted to the accessible elements and must be coated in **SP Anti Graffiti** before applying the **SC stay clean sealer**.

### S-Protect Anti Graffiti SP as delineated on drawings

**Applied to those areas as delineated on the plans as requiring Graffiti Protection.**

To clean dry catalyzed **S-Protect BHN** treated surfaces apply two (2) coats of **S-Protect Anti Graffiti SP** at 8/12 square metres per litre per coat depending on substrate profile and porosity applied with low-pressure garden sprayer or brush and roller in two coats allow the first coat to dry before applying the second coat normally 30 to 60 minutes depending on the weather conditions. The coating is applied as a full coat working from the bottom to the top to prevent run off due to pre impregnation. The second coat may require block brushing or polishing in depending on the density of the substrate being treated so that all the applied product is worked into the substrate. **Note:** do not leave drops or pools that can congeal on the surface and effect the clean ability of the system.

**S-Protect Anti Graffiti SP** ensure canisters are shaken before use to dissolve any precipitated material and only apply in temperatures above 10 degrees. **Note:** On the second coat or dense substrates such as marble or granite surfaces the product will be required to be polished into the surface do not leave droplets sitting on the surface as uncured product can remain sticky. The application must always be in accordance with the TDS Sheet.

Note: ensure adjacent surfaces and all glazing is masked off to prevent impregnation or damage.

## CLEANING OFF A GRAFFITI ATTACK: Contact your S-Protect Contractor

### S-Protect ProfiClean Gel

If the **S-Protect Anti Graffiti SP System** is attacked a viscous cleaner should be used for cleaning. The recommended cleaner is **S-Protect ProfiClean Gel** applied to a dry surface and left in contact to interact for 15 to 30 minutes at a thickness of 2 / 3 m<sup>2</sup> per litre. The dissolved graffiti can then be washed away by waterblasting at a maximum 12 bar pressure to avoid damaging the substrate. As necessary depending on age, thickness and type of graffiti additional cleaning may be required.

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**Note:** ensure the cleaner does not dry on the surface during the graffiti removal process. Once the graffiti is removed reapply one coat of **S-Protect Anti Graffiti SP** to the cleaned area to ensure full protection is maintained.

#### **MAINTENANCE:**

The **S-Protect Silane System** should be cleaned annually by low pressure chemical washing to remove all existing surface contaminants with special attention to non-rain washed areas. When recoating is required at the eight to ten year period to maintain long-term integrity, this can be carried out using SP or SC stay clean over a cleaned surface. If a system change is required, Stoanz Limited should be consulted for a specific specification.

Annual inspections are to be implemented after completion to clearly identify any defects such as; physical damage, substrate cracks, sealant beads, flashings and any other dissimilar connections. A repair process must be implemented immediately to address any faults discovered so the warranty is not compromised.

#### **WARRANTY:**

The **S-Protect Silane System** described in this specification is warranted for a period of five (5) years from the date of practical completion provided maintenance requirements as set out in this specification are followed.

A five (5) year workmanship warranty is issued by the **S-Protect contractor** carrying out the work, and is backed by the Manufacturer as to the suitability for use of the material supplied, provided that

- (a) The approved **S-Protect contractor** who must adequately complete the Sto QA Compliance Procedure Form and PS3 Applicator Warranty carries out all specified work.
- (b) All work is carried out in accordance with this Specification or any written amendments thereto issued by Stoanz Limited.
- (c) The warranty does not cover situations where the plaster system is subjected to physical disturbance, chemical spillage or interference



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