

## POLYURETHANE SMOOTH FLOOR SYSTEM – LIQUID ELEMENTS SMOOTH

Ref #      Date

### **REQUIREMENTS:**

Proposed smooth polyurethane floor system where a 1 to 2mm system is required. Liquid Elements Smooth is a liquid rich, free-flowing, seamless floor system that offers a sleek, edgy, clean surface for high profile environments, where the area will be exposed to traffic and temperatures of ..., to be installed at (project name and location)

### **SCOPE OF WORKS (BOQ):**

Apply **Liquid Elements Smooth** as a 1 to 2mm thick, liquid-rich, free-flowing, seamless polyurethane flooring system, in strict accordance with the manufacturer's product data sheets.

### **THE LIQUID ELEMENTS SMOOTH SYSTEM CONSISTS OF:**

	Product	Kit Size	Theoretical Coverage
Self-levelling Primer	SL Primer	20 Litre kit	60 to 70m <sup>2</sup> /litre/kit
Self-leveler	Liquid Elements Activator, Base and UT Pigment Pack	10 Litre kit	10m <sup>2</sup> /kit at 1mm
Self-leveler	Liquid Elements Activator, Base and UT Pigment Pack	10 Litre kit	5m <sup>2</sup> /kit at 2mm
Sealer	Stonseal CF7	5 Litre kit	50m <sup>2</sup> /kit at 100 microns/coat

### **TEMPERATURE:**

Apply **Liquid Elements Smooth** only in temperatures ranging between 16°C and 30°C.

### **SUBSTRATE PREPARATION:**

The substrate must be dry and free of all wax, grease, oils, fats, soil, loose or foreign materials and laitance. Laitance and unbonded cement particles must be removed by mechanical methods, i.e. abrasive blasting or grinding. Other contaminants may be removed by scrubbing with a heavy-duty industrial detergent (Carboclean 250 or Carboclean 252) and rinsing with clean water. The surface must show open pores throughout with main aggregate in concrete exposed and have a sandpaper texture. Substrate moisture content prior to coating should be below 5% and substrate tensile strength 1.5 MPa. For recommendations or additional information regarding substrate preparation, refer to Surface Preparation Data Sheet or contact StonCor Africa Technical Service Department.

### **PRIMING:**

- The use of **SL Primer** is required for all applications of **Liquid Elements Smooth** over concrete. The substrate must be free of voids and pinholes after priming and prior to the start of the self-leveler application. The primer layer must not be cured for longer than 16 hours to ensure proper inter-coat adhesion.

### **MIXING:**

#### ***Mono:***

- Using 600 rpm high torque mixer fitted with a spiral impeller, mix the pigment pack and Part B component for 30 seconds to achieve a uniform colour. After 30 seconds, add the entire contents of the Part A and mix for a further 90 seconds. Do not mix by hand.

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REFER TO THE LATEST PRODUCT DATA SHEETS BEFORE PRICING OR COMMENCING APPLICATION, FOR ADDITIONAL INFORMATION AND CAUTIONS CONCERNING PRODUCT USAGE.

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**Duo:**

- Mix both colours, following the same procedure used for *Mono*. Once both colours have been mixed, pour the different colours on the floor in beads alongside one another.

**APPLICATION PROCEDURE FOR LIQUID ELEMENTS SMOOTH POLYURETHANE:**

**Mono:**

- Once mixed, pour the entire contents onto the floor and evenly apply the material using a pin rake. Wearing spiked shoes, spike the material with spiked rollers for a period not exceeding 10 minutes to increase the flow, level the material and de-aerate the product. Allow to cure for 16 hours at 25°C.

**Duo:**

- Using a pin rake, spread and blend the material evenly across the floor. Do not spike roll the product. The spike roller will pick up material from the one colour and transfer it to the other, which will result in “spike roller” marks across the floor.
- A soft rubber squeegee can also be used to blend the colours together. It is important not to apply too much pressure when using the rubber squeegee as this might remove too much product from the area worked, which will result in inconsistent thicknesses. The squeegee should glide across the surface of the wet material. The more the product is worked, the less contrast there will be between the two different colours. Allow to cure for 16 hours at 25°C.
- The finish and pattern obtained in the *Duo* option can change from floor to floor and is entirely dependent on the way the product is applied.

**A trial reference sample should be installed by the applicator prior to the start of the contract to verify correct coverages, workmanship, colour and finish.**

**SEALER COAT:**

**Gloss:**

Stonseal 731 is a two-component, solvent-based aliphatic polyurethane that cures to a tough, weather-resistant, high gloss finish.

**Matte:**

Stonseal CF7 is a two-component, high performance, water-based, aliphatic polyurethane coating that combines excellent wear resistance, UV resistance and cleanability with a clear, flat appearance. 2 coats required.

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**CURING:**

Apply only if temperatures are between 16 to 30°C. Allow a minimum of 12 hours cure time before foot traffic, and 48 hours before washdown / cleaning procedures commence.

**RECOMMENDATIONS:**

- **DO NOT** attempt to install the material if the temperature of the Smooth components is above 30°C. Higher temperatures will cause the material to harden more quickly than desired. Conversely, if the temperature of the component is 16°C or lower, Smooth will be stiff and hard to apply. Do not use water or steam in the vicinity of the application. Moisture can seriously affect the working time and other properties.

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- Application equipment must be cleaned immediately after use with scouring pads and warm, soapy water, or mineral spirits.
- Avoid contact with all liquid Parts A and B as they may cause skin and/or eye irritation.
- The use of safety glasses and impervious gloves is required during mixing and application.
- To prevent scratches, felt pads are recommended under chair and table legs.

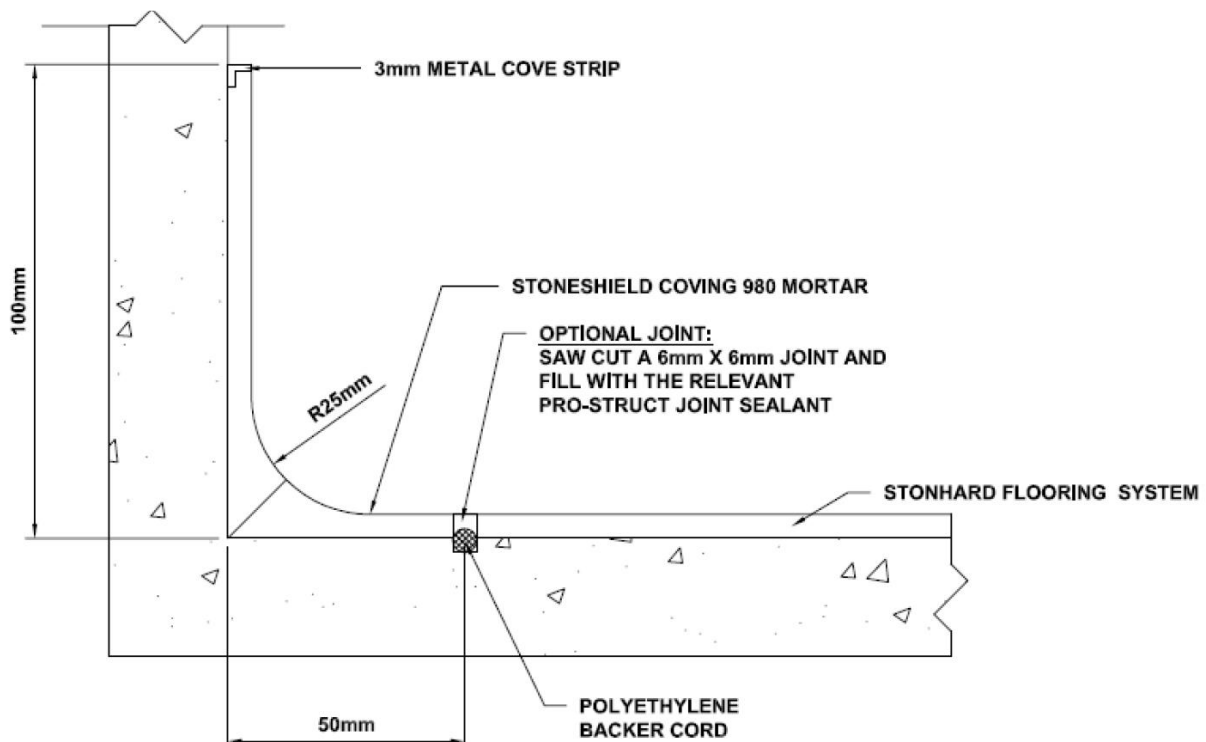
## **NOTES:**

- Procedures for maintenance of the flooring system during operations are described in “StonCor Cleaning Procedures”.
- Safety data sheets are available on request.
- A staff of technical service engineers is available to assist in installation or to answer questions related to Liquid Elements products.
- Requests for technical service or literature can be made through local sales representatives and offices, or corporate offices located throughout the world.
- The appearance of all floor, wall and lining systems will change over time due to normal wear, abrasion, traffic and cleaning. Generally, high gloss coatings can increase in gloss level under normal operating conditions.
- Surface texture of resinous flooring surfaces can change over time as a result of wear and surface contaminants. Surface should be cleaned regularly and deep cleaned periodically to ensure no contaminant build-up occurs. Surfaces should periodically be inspected to ensure they are performing as expected and may require traction-enhancing maintenance to ensure they continue to meet expectations for the particular area and conditions of use.

## **ARCHITECT DETAIL:**

- Coving
- Joints

## **COVING:**



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## **APPLICATION PROCEDURE FOR EPOXY MORTAR COVERED SKIRTINGS:**

- Epoxy mortar coved skirtings shall be installed prior to the installation of the flooring system.
- Install the metal cove strip to the wall to the desired height using contact adhesive, taking care to mask above the cove strip for neatness.
- Prime the prepared plastered / concrete surfaces with Dural 618R at a theoretical coverage of 15 linear metres x 200mm wide per 1 litre kit and broadcast Stonhard 6222 Aggregate into the wet resin. Allow 6 to 8 hours to cure at 25°C.
- Mix the 1 litre kits of base and activator of Dural 618/22 for 2 minutes using a JB blender. Add the 6kg bag of Stonhard 622 Aggregate and mix for a further 2 minutes. The yield of this kit is 3.64 litres. Using a steel trowel, apply the Dural 618/22 Mortar to the primed concrete and plastered surfaces to a theoretical spread rate of 3.6 linear metres for a 100mm x 100mm x 25mm radius.
- Form the cove to the desired radius using a suitable coving trowel, allow to cure for 18 to 24 hours at 25°C.
- Abrade the vertical surface of the cove to remove surface imperfections.
- Overcoat the coving with the proposed flooring sealer.

**Technical Approval:** \_\_\_\_\_

**Date:** \_\_\_\_\_

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