

## SELF SMOOTHENING POLYURETHANE FLOOR TOPPING

### DESCRIPTION

**Floorgard PUSL** is a nominal 2-5 mm. thick seamless solvent free self smoothening polyurethane flooring system with a semi matt surface finish and smooth surface texture. **Floorgard PUSL** being water based is environment friendly.

### USES & ADVANTAGES

**Floorgard PUSL** is recommended where maximum chemical resistance is required in combination with a hard wearing surface and medium/heavy traffic, heavy duty and easy to maintain smooth surface. Specific process areas include pharmaceutical, food and beverage, dry powder, textile, meat & poultry, and electronic production etc.

#### Advantages include:

- High abrasion resistance.
- Hygienic - non tainting and non-dusting. Monolithic, easy to maintain & keep clean, microbiologically inert.
- Excellent chemical resistance.
- Excellent wear impact and abrasion.
- Smooth, seamless, even finish, no crevices where bacteria can gather.
- Non toxic.

### PROPERTIES (At 28 days 25°C)

<b>Component:</b>	3 Part A - Base Part B - Hardener Part C - Coloured filler
<b>Mixed Density:</b>	1.74±0.02 kg / ltr
<b>Compressive Strength:</b> (ASTM C579 method B)	>45 N/mm <sup>2</sup> @ 28 days
<b>Tensile Strength:</b> (ASTM C307)	>5 N/mm <sup>2</sup> @ 28 days
<b>Flexural Strength:</b> (ASTM C580)	>15 N/mm <sup>2</sup> @ 28 days
<b>Bond Strength:</b> (ASTM D4541)	>cohesive strength of concrete
<b>Shrinkage on Cure:</b>	<0.05%
<b>Abrasion Resistance Taber CS17:</b>	<80 mg
<b>Chemical Resistance:</b>	Resistant to sugars, mild detergents, some hydrocarbons, inorganic & organic acids such as :-
• Hydrochloric acid 10%	• Methanol
• Sulphuric acid 10%	• Caustic soda 50%
• Citric acid 10%	• Petrol
• Acetic acid 5%	• Oil
• Lactic acid 10%	• Detergents
• Acetone	

Consult Cormix International for detailed information.

**Pot Life:** Approx. 15 minutes at 25°C

**Colours:** Yellow, Red, Green, Grey

**Note : Floorgard PUSL** may discolour with ageing and is more noticeable in light colours, this will not impair chemical resistance.

**Service Temperatures:** 2 mm thickness -15 to +60°C  
5 mm thickness -15 to +80°C

Do not apply if materials or floor temperatures below 10°C.

### SURFACE PREPARATION

The concrete shall be sound, dry, and free from all contaminants. Capitive shotblasting is recommended or scarifying. All dust, dirt, laitance, curing compounds, oil, grease, existing coatings etc. must be removed to create a sound substrate surface.

The minimum tensile (pull off) strength shall be 1.5 N/mm<sup>2</sup>. New concrete shall have cured for at least 28 days and incorporate a continuous waterproofing membrane with a compressive strength greater than 25 N/mm<sup>2</sup>. Concrete design shall provide for movement joints as needed and provision made for induced joints to allow for any shrinkage of the concrete along defined planes. Anchorage grooves at least 8 mm wide & 8 mm deep should be formed at edges, bay joints, columns, drains, doorways and at regular centres across the floor.

Movement joints must be carried through **Floorgard PUSL** and sealed. Construction joints and cracks may be covered but they may reflect through the **Floorgard PUSL**.

Please contact Cormix Technical Service for a detailed bulletin for surface preparation.

### PRIMING

**Floorgard PUSL** must be applied to surfaces primed with **Floorgard Moisture Barrier**. Surfaces to be primed must be clean, dry, dust free, free of laitance and all contaminants. Old concrete must be checked for contamination e.g. oils, fats and sugars. Surface preparation should be by shotblasting, scarifying, grinding and hot compressed air for oil contaminated surfaces. Acid etching must not be used and wire brushing is not recommended. All dust /debris must be removed, after preparation, by vacuuming. Do not apply **Floorgard PUSL** at material or floor temperatures below 10°C, temperatures must not fall below 5°C for the first 24 hours after application.

**Floorgard Moisture Barrier** must only be applied by trained specialist applicators. Immediately after mixing apply the material using a short nap roller and or squeegee working well into the surface. For very porous surfaces where two coats are required the first coat must cure overnight before applying the second coat.

The consumption of **Floorgard Moisture Barrier** is approximately 4.5-5.5 m<sup>2</sup>/litre/Coat@150 micron DFT depending on substrate porosity, the texture of the surface applied to, method of application and temperature of substrate.

**Note :** Alternatively rather than use **Floorgard Moisture Barrier** scratch coat of **Floorgard PUSL** may be applied and surface imperfections levelled with a combination of scratch coat and clean 0.7 mm down silica sand mix at 11 kg/set of 25 kg. The coverage rate will be 2.1 kg/m<sup>2</sup>. For further details consult Cormix International Ltd.

### MIXING

The components are preweighed. Do not split or change proportions of packs. Do not add to or remove anything from the mixes.

Stir Base (A) to redisperse any settlement. Add Part C (coloured filler) into Part A (Base) under slow speed mixing by using drill and a paddle. Mix approximately for 1-2 minute till the material is free from lump and uniform colour is achieved. Then add Part B (Hardener) to this and mix for 1-2 minute till uniform mix is achieved.

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### APPLICATION

**Floorgard PUSL** must only be applied by trained specialist applicators. Immediately after mixing spread the topping onto the primed floor to the required thickness with a rake, notched trowel or notched squeegee within 3 minutes of application roll with a spiked roller. To even out surface and remove any entrained air stop spike rolling at 6 minutes after placing of materials.

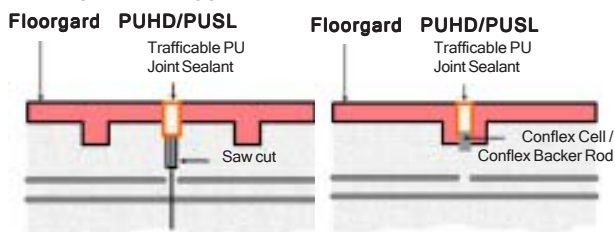
### COVING

Covings must be formed using **Floorgard PUV**.

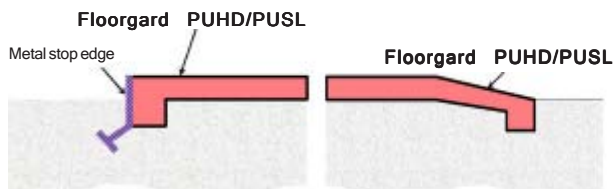
### CONSUMPTION RATES

1.8 kg/m<sup>2</sup> / mm thick.

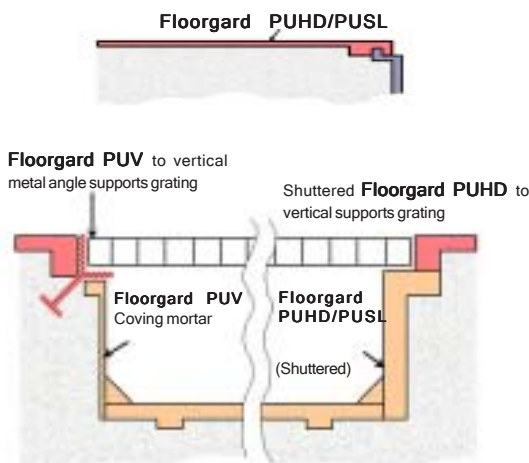
### DETAILS - DRAWINGS



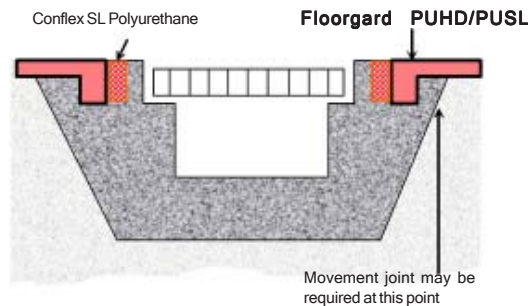
Note: Grooves not needed for **Floorgard PUSL**  
**Induced Joint / Expansion Joint**



**Final Edge to doorway / Final Edge to Original Level**  
**Edge to Glazed Drain Gully**



Note: **Floorgard PUV** fillet is optional  
**Lined Channel**



**Stainless Steel Drainage Channel**

### APPLICATION THICKNESS

Minimum 2 mm.

Maximum 5 mm.

For applications over 5 mm please consult Cormix Technical Department for more details.

### CURING

30°C foot traffic 12-16 hours; vehicular traffic 24-30 hours.

20°C foot traffic 16-24 hours; vehicular traffic 30-36 hours.

Full cure 7 days.

### CLEANING

Regular cleaning, both dry and wet using mechanical scrubbers or the use of hot water with detergent, will maintain the floors appearance and reduce soiling.

### PACKAGING

**Floorgard PUSL** is supplied in 25 kg pre-measured sets. Pre-portioned packs never add or remove any of materials from packs.

### STORAGE & SHELF LIFE

**Floorgard PUSL** can be stored for up to 9 months from manufacture date at 30°C providing stored above ground level, under cover in unopened original packaging, out of direct sunlight.

### HEALTH & SAFETY

Gloves and eye protection must be worn during mixing and application. Standard precautions should be taken as with handling all chemicals. Consult and follow the product material safety data sheet. Material splashed onto naked skin should be immediately removed with soap and copious water before curing.

### TECHNICAL SERVICE

The Cormix International Technical Service Department is available to assist you in the correct use of our products and its resources are at your disposal entirely without obligation.

### QUALITY ASSURANCE

ISO 9001 : 2008 verified by TUV Nord.

### CONTACT DETAILS

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