

Self Smoothing Polyurethane Floor Topping

Guardian SLPU is a nominal 3-4 mm. thick seamless solvent free self-smoothing polyurethane flooring system with a semi matt surface finish and smooth surface texture.

Guardian SLPU being water based is environment friendly.

USES & ADVANTAGES

Guardian SLPU 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:-

- Hygienic contains an antimicrobial additive.
- 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.
- Easy to maintenance.

PROPERTIES @28 Days 25°C

Components:	Part A – Base	Part B – Hardener	Part C – Filler	Colour Pack
Mixed Density:	1.90 kg/m ²			
Compressive Strength:	> 40 N/mm ² .		(ASTM C579)	
Tensile Strength:	> 7 N/mm ²		(ASTM D638)	
Flexural Strength:	> 20 N/mm ²		(ASTM C348)	
Bond Strength:	> cohesive strength of concrete (ASTM D4541) Concrete failure			
Shrinkage on Cure:	< 0.05%			
Abrasion Resistance Taber CS17	: <80 mg			
Chemical Resistance:	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		
<i>Values indicated are internal test results. Consult Guardian for detailed information.</i>				
Pot Life:	15 minutes at 25°C			
Colours:	Yellow, Red, Green, Grey			
Service Temperatures:	3 mm thickness - 5°C to + 70°C 4 mm thickness - 15°C to + 90°C			

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

Important Notes: Guardian SLPU may discolour with ageing and is more noticeable in light colours, this will not impair chemical resistance or physical characteristics.

Self Smoothing Polyurethane Floor Topping

SURFACE PREPARATION

The concrete shall be sound, dry, and free from all contaminants. Captive 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/

mm². New concrete shall have cured for at least 28 days and incorporate a continuous waterproofing membrane with a compressive strength greater than 25 N/mm².

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 **Guardian SLPU** and sealed. Construction joints and cracks may be covered but they may reflect through the **Guardian SLPU**.

Please contact Guardian for a detailed bulletin for surface preparation.

PRIMING

Guardian SLPU must be applied to surfaces primed with **Guardian TOPHD-Primer**. 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 **Guardian SLPU** at material or floor temperatures below 10°C, temperatures must not fall below 5°C for the first 24 hours after application.

Guardian TOPHD-Primer 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 **Guardian TOPHD-Primer** is approximately 5-7 m²/kg depending on substrate porosity, the texture of the surface applied to, method of application and temperature of substrate.

MIXING

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

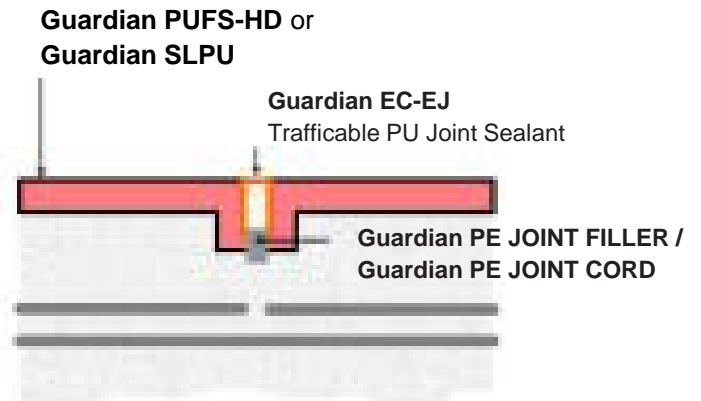
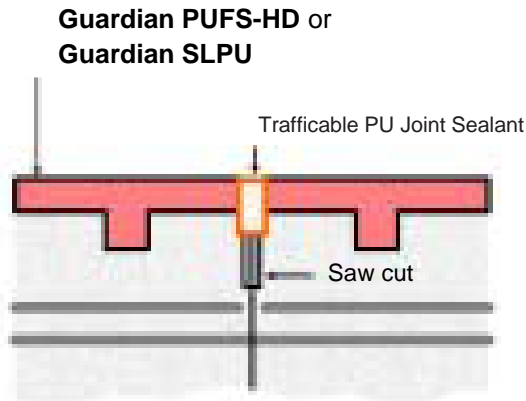
Stir Base (A) to redisperse any settlement. Add the colour pack into Part A (Base) under slow speed mixing by using drill and a paddle. Mix approximately for 1-2 minute until the material is free from lumps and a uniform colour is achieved. Then add Part B (Hardener) to this followed by Part C filler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

APPLICATION

Guardian SLPU 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.

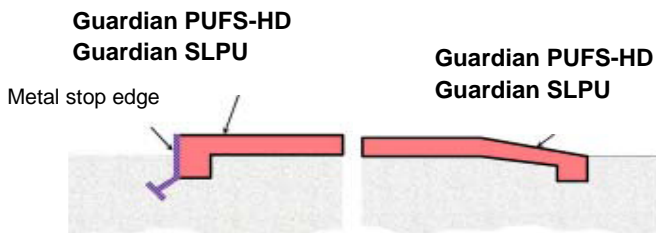
Self Smoothing Polyurethane Floor Topping

DETAILS - DRAWINGS

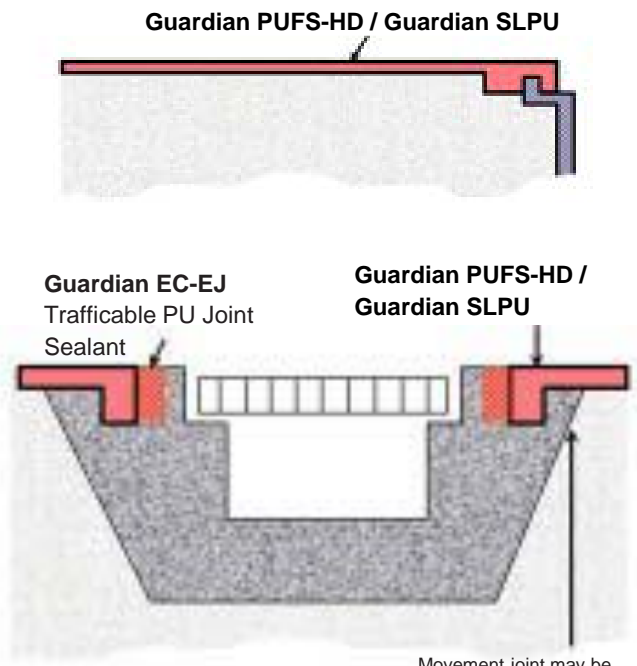
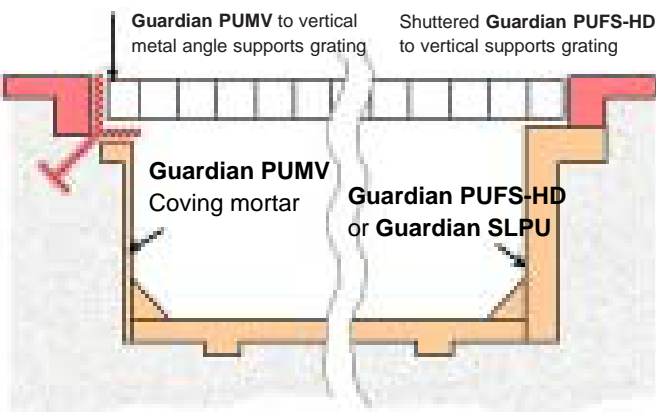


Note: Grooves not needed for **Guardian SLPU**

Induced Joint / Expansion Joint



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



Movement joint may be
required at this point

Note: Guardian PUMV fillet is an optional

Lined Channel

Stainless Steel Drainage Channel

COVING

Covings must be formed using **Guardian PUMV**

CONSUMPTION RATES

1.80 kg/m²/mm thickness.

APPLICATION THICKNESS

Minimum 3 mm. Maximum 4 mm.

For applications over 4 mm please consult Guardian for more details.

Self Smoothing Polyurethane Floor Topping

CURING

30°C foot traffic 8 hours; light vehicular traffic 16 hours.
20°C foot traffic 12 hours; light vehicular traffic 24 hours.
Full cure 6-7 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.

STORAGE & SHELF LIFE

Guardian SLPU 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.

PACKAGING

Guardian SLPU is supplied in 25 kg pre-measured sets, never add or remove any of materials from packs.

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

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

IMPORTANT NOTES

Retaining grooves should be placed at exposed edges. Do not apply over polymer modified cement screeds. Protect new floors for at least 24 hours before direct water contact. Protect from condensation when applying. Allow 48 hours after product application before placing into service close to food stuffs. Do not apply to cracked or unsound surfaces.

Guardian products are subject to discolouration when exposed to UV, the extent depends on the colour. There is no measurable change in the products properties. The products may be used outside providing the change in appearance is accepted by the clients.

Colour uniformity cannot be completely guaranteed from batch to batch. If in doubt ask Guardian

Do not apply to green concrete or where moisture content > 5%. Do not mix by hand. Not recommended for shock freezers. Do not apply below 10°C or above 35°C or maximum relative humidity of 85% Hot steam cleaning may result in delamination due to thermal shock.

QUALITY ASSURANCE (OEM)

ISO 9001: 2015 verified by TUV Nord.

ISO14001:2015 verified by Lloyd's Register International.

DISCLAIMER

Performance data is achieved testing in accordance with International Standards. Testing by others may result in different results from those published as a result of external factors such as poor sampling, incorrect mixing, varying temperatures, curing, crushing procedures etc.

Guardian does not take responsibility nor need to defend others testing that does not achieve the published data.

The user must test the products suitability for the intended application and purpose. Guardian reserves the right to change the properties of the product.

Site conditions and differences in materials are such that no warranty or fitness for a particular purpose, nor liability can be inferred from the published data sheet, written recommendations or from other advise offered

All statements and data presented herein are given in good faith and believed to be appropriate and reliable. It is given without express or implied warrant or guarantee. Potential users of Guardian's materials are urged to conduct confirmatory trials to satisfy themselves as to the suitability of the selected product for their particular end use prior to purchase.