

Polyscreed PU

4-6mm heavy duty polyurethane based flooring system

Four component, water based, chemical resistant, antimicrobial polyurethane resin flooring system.



CHARACTERISTICS

- ▶ Water based with a high level of mechanical, chemical and water resistance.
- ▶ Non-dusting
- ▶ Thermal resistance
- ▶ Chemical resistance
- ▶ Eco-friendly
- ▶ Anti-microbial & seamless
- ▶ Low maintenance
- ▶ Easy to clean
- ▶ Ideal for use in green building projects



DESCRIPTION

Polyscreed PU is a four component, water based, chemical resistant, antimicrobial polyurethane resin flooring system. It has a hard wearing, abrasion resistant and smooth matt coloured floor finish.

FIELDS OF APPLICATION

- food & beverage production units
- dairies & confectioneries
- clean room areas
- laboratories
- chemical plants
- hotel kitchens
- meat, poultry and fish processing plants
- electronic components manufacturing & assembling units

APPLICATION INSTRUCTIONS

Surface preparation

The concrete surface should thoroughly be cleaned of all loosely adhering particles, laitance, dust, oil, grease, paint, etc. Remove localized weak or deteriorated concrete and replace by sound concrete and structural repair materials. After surface preparation, all loose debris and dirt should be removed by vacuum equipment.



Scratch coat / priming Apply

Polyscreed PU as a scratch coat @ 1.6 to 2kg/m² over properly prepared surface. Leave the scratch coat to be completely dry. Apply Polyscreed PU within 24 hours of the application of the scratch coat. For weak and critical substrates, use our primer- Polyprime W in place of scratch coat so as to get better bonding. Leave the primer to be completely dry. If the primer is left for more than 24 hours before application of Polyscreed PU, an additional coat of primer should be applied

Mixing

Pour the entire contents of Part A and Part D (colour pigment) in a mixing pot and mix it for 15 seconds, then add Part B to this mix and keep mixing it with a heavy duty paddle mixer fitted to a high torque slow speed (300-400/rpm) drill for a minute to get a homogenous mix. Then add Part C (powder) slowly into the mixture and further mix until a uniform consistency is achieved. Part mixing is not recommended.

Application

Pour the mixture of Polyscreed PU on the floor. Spread the mix with a notch trowel uniformly to achieve the desired thickness of 4 to 6 mm. The material is to be rolled with a spike roller to release the entrapped air from the mix. The

subsequent kit should be poured on the floor within the pot life of the first kit and should be spread and joints should be matched. The floor should be spike rolled and joint should be matched by rolling on the joint. Care should be taken not to take the spike roller on the earlier kit as the setting of the earlier kit has already started and taking spike roller on it can leave roller marks on the surface.

Curing & Protection

Protect the applied area for 24hrs till the applied Polyscreed PU achieved its initial strength. Please refer detailed method statement which can be requested to local sales team.

Application conditions

For best results materials, substrate and air temperature should be in the range of 15-30°C. Even though Polyscreed PU will cure out effectively over a wide range of temperatures, the optimum appearance is most readily achieved under good site conditions.

Substrate moisture tolerance

Being a higher moisture tolerant material, Polyscreed PU can be installed on a visibly dry substrates of even 7 days old concrete or good quality old concrete. For more details, please refer our Method Statement.

CLEANING

Clean all tools with Polysolvent immediately after use. Hardened materials can be removed mechanically only.

STORAGE & SHELF LIFE

Store in a cool, dry place and keep away from all sources of heat and sunlight. In tropical climates, store in air condition rooms. The shelf life is upto 6 months in un-opened condition in warehouse conditions between 5°C to 30°C and if stored as per recommendations. Excessive exposure to sunlight, humidity and UV will result in the deterioration of the quality of the product and reduce its shelf life.

LIMITATIONS

Polyscreed PU is not colour fast and may change colour over time (exhibits a yellowing effect). Colour change depends on the UV light and heat levels present and hence the rate of change cannot be predicted but does not compromise the product's flexibility or chemical resistance characteristics.

HEALTH & SAFETY

As with all construction chemical products, caution should always be exercised. Protective clothing such as gloves and goggles should be worn. Treat any splashes to the skin or eyes with fresh water immediately. Should any of the products be accidentally swallowed, do not induce vomiting, but call for medical assistance immediately.

SUPPLY

Polyscreed PU	20kg kit
Polysolvent	5L & 20L pails
PolyprimeW	3kg kit

TECHNICAL SPECIFICATIONS

PROPERTIES	VALUES	TEST STANDARDS
Pot Life @ [25°C], [minutes]	>20	
Mixed density [gm/cc]	2.0 ± 0.10	ASTM D 1475
Compressive strength @ 28 days, N/mm ²	> 50	ASTM C 579
Tensile strength @ 28 days, N/mm ²	> 6	ASTM C 307
Flexural strength @ 28 days, N/mm ²	> 18	ASTM C 580
Taber abrasion resistance [1000g, 1000cycles] weight loss, mg	< 50	ASTM D4060
Temperature resistance,[°C]	-10 to +70	
Color	Green, grey, red and yellow	
Application Thickness	4-6mm	
Theoretical coverage @ 4mm thickness, [kg/m ²]	8	
@ 6mm thickness, [kg/m ²]	12	
Chemical resistance	Polyscreed PU provides resistance to a wide range of Chemicals. It is resistant of low to moderate concentration of organic and inorganic acids, alkalis, animal fat, mineral oil, etc. Please contact HPIL Technical Team for details	

All values given are subject to 5-10% tolerance

Apart from the information given here it is also important to observe the relevant guidelines and regulations of various organisations and trade associations as well as the respective standards. The aforementioned characteristics are based on practical experience and applied testing. Warranted properties and possible uses which go beyond those warranted in this information sheet require our written confirmation. All data given was obtained at an ambient and material temperature of +23°C and 50 % relative air humidity at laboratory conditions unless specified otherwise. Please note that under other climatic conditions hardening can be accelerated or delayed.

The information contained herein, particularly recommendations for the handling and use of our products, is based on our professional experience. As materials and conditions may vary with each intended application, and thus are beyond our sphere of influence, we strongly recommend that in each case sufficient tests are conducted to check the suitability of our products for their intended use. Legal liability cannot be accepted on the basis of the contents of this data sheet or any verbal advice given, unless there is a case of wilful misconduct or gross negligence on our part. This technical data sheet supersedes all previous editions relevant to this product.

Henkel Polybit Industries Ltd.; PO Box: 293, Umm Al Quwain, UAE

Tel: +971(6)76 70 777; Fax: +971(6)76 70 197; henkelpolybit@henkel.com

Henkel Polybit Industries Ltd.; PO Box: 5911, Dammam-31432, KSA

Tel: +96613808 4061 / 62, Fax: +966 13 812 1164; polybitdammam@henkel.com

www.henkelpolybit.com



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