



Chem Coats (Pvt) Ltd.

ChemScreed PU

DESCRIPTION

ChemScreed PU is a Four-component polyurethane mortar which when screeded to 6 -10mm provides a nonslip floor available in a range of colours.

USES

ChemScreed PU provides a heavy-duty, thermal shock-resistant, hard-wearing floor finish with exceptional chemical resistance.

Typical areas of application include Food processing factories, Chemical processing plants, and Pharmaceutical production for use in wet and dry process areas where the floor is subjected to hot fluid spillage steam cleaning, heavy traffic, and impact and chemical attack.

BENEFITS

- Impact resistant.
- Heat resistant to 120° C.
- Steam cleanable.
- Seamless and hygienic finish, no crevices where dirt and bacteria can collect.
- Excellent chemical resistance.
- Easy to clean and sterilize, low maintenance requirement.
- Anti-slip finish.
- High abrasion resistance.
- Low odor during installation.

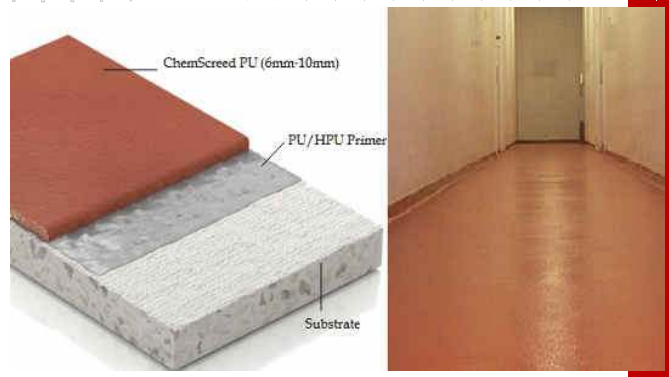
COLOURS

ChemScreed PU is not colour stable and may discolour on ageing; this is more noticeable in light colours. This will not impair its chemical resistance. Where colour matching is required over more than one order or delivery, **Chem Coats** Technical Department must be contacted prior to placing the order(s) and the requirement stated clearly on all orders relating to the project(s). The colour range includes dark green, mid grey, mustard and red.

PROPERTIES DURING APPLICATION	23° C	30° C
Pot life	15 min.	10 min.
Light Foot Traffic	16 Hrs	12 Hrs
Full Traffic	40 Hrs	24 Hrs
Fully Cured	7 Days	5 Days
Density	2.15 Kg/Liter	

PROPERTIES OF DRY FILM	
Compressive strength	approx. 50 MPa
Flexural strength	approx. 14 MPa
Tensile strength	> 12 MPa
Bond	>cohesive strength of concrete
Impact resistance	>0.5mm (BRE screed)
Abrasion resistance by Taber (1000 cycle with a 1 kg load) to ASTM D4060	0.90 W / ° C
Temperature resistance	-35° C to +120° C at 8mm thickness

Four component polyurethane mortar



CAUTIONARY NOTE:

Variations in aggregates can cause variations in floor colour. Although every effort is made to keep product colours consistent, it is advisable to use product from the same batch in specific areas. Products can be pre-blended to further limit colour variations.

SURFACE PREPARATION

Substrate must be concrete or polymer modified screed above 25 MPa compressive strength. Preparation involves the use of totally enclosed heavy shot blasting or scarification. All residues must be removed to provide a dry, dust-free open textured surface with exposed aggregate. Anchorage grooves, a minimum 8 mm wide x 8 mm deep, must be formed at all perimeter edges, each side of bay joints, around columns and doorways, at drains and at the perimeter of each area installed. Generally, groove width and depth is 2X screed thickness. If time constraints (or any other) results in application of screed short of these anchor grooves, then cut new grooves to finish off application and start next application with new grooves.

Substrate Requirements

Must be strong enough to support loads applied through the topping. Must be free from rising damp. All contamination must be removed to give a clean, dry, open- textured surface with exposed aggregate.

Substrate Repair

Where speed of installation is important, levels, falls and repairs up to 10 mm may be made using the **ChemScreed PU**. Re-priming of such areas will be necessary. For repairs above 12 mm, use **ChemLatex** polymer reinforced concrete or screed system.

Substrate Movement

All moving joints must be carried through the **ChemScreed PU** and properly sealed. Construction joints and cracks may be covered but if substrate movement occurs, the **ChemScreed PU** will reflect the crack areas subject to large temperature changes, the effect of these changes on the substrate movement must be considered.

BONDING / PRIMING

For non-porous surfaces no primer is required—**ChemScreed PU** may also be applied to slightly damp surfaces. Porous surfaces tend to absorb binder and therefore compromise workability during application. For porous surfaces, **PU/HPU primer** is recommended as a pore sealer. Apply **ChemScreed PU** an hour minimum after application of primer.



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MIXING

Kit components are pre-weighed for optimum performance. Never split or proportion kits.

The prescribed aggregate must be used as supplied in kit form and not substituted with an alternative. Do not mix by hand. A forced action pan mixer is recommended.

Charge pan with Base component. Add Hardener component to the Base component and mix for approx. 30 sec until colour is a uniform cream colour. Add Aggregate & Pigment components and mix for at least 3 minutes, until the mixture is uniform.

COVERAGE

12.9kg/m² at 6 mm (no wastage)

APPLICATION

Immediately after mixing, dump mix on substrate and form screed using screed rails and plastic trowels (the use of a metal trowel will result in discolouration). Lay abutting mixes within 10 minutes to ensure neat edge.

The surface is finished off with a structured roller while wet immediately after trowelling. Late or heavy rolling may induce pin holes.

COVING

Use relevant ChemScreed coving grade colour with appropriate primer for coving and/or vertical applications.

CLEANING OF EQUIPMENT

ChemCoats super brush cleaner before product has cured.

PROTECTION/MAINTENANCE ON COMPLETION

Protect surface against traffic and spillage until cured.

TEMPERATURE AND RELATIVE HUMIDITY

ChemScreed PU should be applied at material temperatures between 12°C and 18°C and ambient temperatures of +5 to +30° C. Temperatures should not fall below +5° C in the 24 hours after application.

MODEL SPECIFICATIONS

A four-component polyurethane floor screed.

The floor screed will be ChemScreed PU, a four-component, polyurethane system comprising a resin, activator and pigment blended with a pre-packed filler applied in accordance with Chem Coats Construction Chemicals' recommendations including all necessary primers (PU/HPU primer).

PACKAGING

ChemScreed PU is supplied in 32 kg packs, consisting of Base, Activator, Pigment Paste and Aggregate.

HANDLING & STORAGE

All ChemScreed PU related products have a shelf life of 12 months if kept in a dry, cool store in the original, unopened packs. If stored at high temperatures and/or high humidity conditions, the shelf life may be reduced. It is recommended that the containers be turned 180 degrees from top to bottom every month during storage.

HEALTH & SAFETY

Avoid inhalation of dust and contact with skin and eyes. Suitable protective clothing, gloves, eye protection and respiratory protective equipment should be worn. The use of barrier creams provides additional skin protection. If contact with skin occurs, wash with water and soap. Splashes into eyes should be washed immediately with plenty of clean water and medical advice sought.

Wet ChemScreed PU is toxic and flammable. Ensure the working area is well ventilated during application and drying. Avoid flames in vicinity.

Cured ChemScreed PU is inert and harmless.

IMPORTANT NOTE

The information given in this data sheet is based on current development work and many years of field experience. Whilst every effort is made to ensure that the information is reliable, we cannot accept responsibility for any work carried out with our materials as we have no controls over methods of applications, site conditions etc. In view of the continuing research and development being undertaken in our laboratories we advise customers in their own interest to ensure that this data sheet has not been superseded by a more up-to-date publication. All products are sold subject to our standard conditions of sale which are available on request. Field services, where provided, does not constitute supervisory responsibility. For additional information, please contact your local ChemCoats representative.

RANGE OF PRODUCTS

<u>WATERPROOFING SYSTEMS</u> <u>INDUSTRIAL FLOOR SURFACES</u> <u>PROTECTIVE COATINGS</u>	<u>PREPACKED REPAIR MORTARS</u> <u>CEMENTITIOUS & EPOXY GROUTS</u> <u>CONCRETE ADMIXTURES</u>	<u>SEALANTS</u> <u>CRACK INJECTION</u> <u>CONCRETE ADHESIVE</u>
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Chemical Resistant Chart of ChemScreed PU

CHEMICAL PROPERTIES OF DRY SCREED				
CHEMICAL RESISTANCE	EXCELLENT	GOOD	LIMITED	
ACIDS				<p>Consult Chem Coats for more specific requirements.</p> <p>Excellent = No change in product even after long-term contact.</p> <p>Good = No change in the product after one month contact, either no long-term test results, or some change after long-term contact.</p> <p>Limited = Will resist 2 - 3 hours before irreversible damage will occur or is destroyed.</p>
Citric 10%	+			
Acetic 10%	+			
Lactic 5%	+			
Sulphuric 20%	+			
Hydrochloric 20%	+			
Nitric 20%	+			
Phosphoric 20%	+			
ALKALI				
Sodium Hydroxide 70%	+			
Ammonia 10%	+			
SOLVENTS				
Engine oil	+			
Hydraulic oil	+			
Petrol	+			
Diesel	+			
Kerosene	+			
Acetone			+	
Butanol	+			
Skydrol	+			
Xylene	+			
Toluene	+			