

DATA SHEET / USCREED POLYURETHANE INDUSTRIAL FLOORING SYSTEM and **COVING**

GENERAL DESCRIPTION:

Polyurethane is a heavy-duty based floor designed to provide excellent resistance to abrasion, chemical attack, and other physical aggression. It is suitable for wet and dry environments in the beverage, food, and mechanical industries, applicable to areas with high performance.

COMPOSITION:

Water dispersed polyurethane resin system combined with graded silica aggregates.

APPEARANCE:

A level mottled aggregate surface with chosen background colour providing a light slip resistant texture. The floor will result in uniform finish.

DURABILITY:

Highest order of durability, resistance to abrasion, impact, and chemical attack. Stable to steam cleaning.

THICKNESS:

Typical: 1mm; 3mm; 4mm; 6mm; 9mm

BOTTLE COVING:

Uscreed Primer – Refer to Datasheet (± 16.4 linear meters per kit)

Uscreed Mortar – Refer to Datasheet (± 8.9 linear meters per kit)

Uscreed 1mm – Is applied over Uscreed Mortar as the final coat as a colour (± 20 linear meters per kit)

TYPICAL INSTALLATIONS:

Heavy duty situations to contact. Chemical processing - Food processing - Brewing -Heavy-duty traffic and plant vehicles - Engineering process areas.



SUBSTRATES:

Concrete, polymer-reinforced screeds, grano, concrete.

SUBSTRATE REQUIREMENTS:

Concrete substrates must have a minimum compressive strength of 25 MPa, minimum tensile pull-off strength of 1.5 MPa and be free of oil, fat, grease, dust, and loose friable materials. Moisture testing to be done.

BENEFITS:

- Antimicrobial performance
- High chemical resistance
- Easy to clean and sterilize anti-slip surface, minimal joints
- Heat resistant to 120°C
- Steam cleanable
- Freeze/thaw resistant
- Non-tainting and non-dusting
- High abrasion resistance
- Withstands high mechanical stress
- Suitable alternative to expensive acid resistant tiles
- Low odour during application
- Positive slip resistance

SURFACE PREPARATION:

To be assured of maximum adhesion and properties from polyurethane resin products the correct surface preparation is essential. A clean, dry surface, void of contamination and oils, mechanically grinded or abraded. Remove all previous coatings, unbounded concrete, and laitance mechanically through diamond grinding, abrasive blasting or scarifying to obtain a sound and porous surface. Sweep dust and loose debris followed by vacuuming, to obtain a dry and dust-free surface.

APPLICATION CONDITIONS:

5-30° C Maximum moisture content of substrate 10%.

PRIMING:

Priming of all surfaces should be undertaken; primer should be allowed to cure for a minimum of 16 hours, prior to application of the polyurethane resin. (Maximum cover coating time at 20° C -48 hours) Prime at approx. 125g/m². We recommend that all size kits are primed, but 6mm and 9mm kits are considered self-priming.



MIXING:

Pre-mixing of the coloured liquid component is recommended to ensure any light settlement is reincorporated. Thoroughly scrape the contents of the liquid colour component into the brown hardener component and mix for a minimum of one minute or to provide a homogeneous mix. The resultant mixture should then be loaded into a rotary drum mixer and the aggregate component added in stages, until a lump free mix is obtained. Apply to pre-primed areas and level between battens as necessary, with a steel float. Final finishing may be affected by “back rolling” with a spiked roller.

MIXING SUGGESTIONS FOR EASY APPLICATION:

Open all aggregate bags before the mixing starts to ensure no time is wasted between mixes. Set up the mixing machine as close to the floor as possible (Use two mixing vessels to ensure time between mixes / kits is minimized) Prior to mixing, the temperature of the three components must be between 15 and 25 C. Pre-mix the resin component before use. Add the hardener component to the resin component and mix using a low-speed electric mixer (300 - 400 rpm) for 1 minute until homogeneous. Decant the mixture into a rotary drum mixer and add the aggregate component in stages, mixing for a minimum of 2 minutes until a uniform coloured, lump-free mix is obtained. Apply primed areas to the required thickness using a steel float. Ensure that anchor grooves are fully wetted out with material. Note: due to the high resin content, ‘back-rolling’ of U-Screed can lead to an increased risk of pin-holing and texture in the surface.

COVERAGE RATES:

1.8m² at 9mm
2.2m² at 6mm
3.2m² at 4mm
4m² at 3mm
5m² at 1mm

MAINTENANCE:

Regular cleaning of the applied system is recommended to maintain slip resistant agents in combination with pressure washing / steam cleaning may be employed.

ANCHOR JOINTS:

Anchor joints must be present in the surface of the concrete within 75mm to 150mm of all joints, column base, perimeter walls, drainage channel and door thresholds etc.

CURE SCHEDULE:

Usable life of full unit/mix at 20° C. 15min
Initial film gel time (joining up) at 20° C/9mm build 20 min.
Cure time to light pedestrian traffic 12 hours.
Cure time to light wheeled traffic 24 hours.
Cure time to heavy duty traffic 48 hours
Full chemical resistance 7 days

CHEMICAL RESISTANCE:

THALES TESTING COMPLETED – APPROVED – CERTIFICATES ATTACHED

Excellent resistances to organic and inorganic acids, alkalis, fuel and hydraulic oils, aromatic and aliphatic solvents.

TECHNICAL DETAILS:

Colours	All standard colours - REFER TO COLOUR CHART AS INDICATION - Always refer to physical sample
Equipment Care	All tools should be cleaned with thinners or xylene immediately after use
Packaging	Supplied in 2.90 Litre Resin, 2.45LT Hardener & 25Kg Aggregate
Health & Safety	All protective clothing must be worn and used in accordance with safety regulations.
Storage	The storage, mixing and application conditions can affect the quality of the finish produced. Cool and a dry place. Store off the ground in un-opened packs in a dry store, under cover between 10°C and 30°C out of direct sunlight. Protect from frost.
Shelf Life	Resin and hardener components 12 months Aggregate component 6 months
Compressive Strength	>50 MPa
Tensile Strength	>12 MPa BS6319
Flexural Strength	>20 MPa
Concrete Adhesion	>1.5MPa (Concrete failure) ASTM D7234 Impact Resistance 1kg>1.8m 2kg>1.5m ISO6272-1:2011
Hardness	80 Shore D
Slip Resistance	Dry>70 Wet >25 TRRL Pendulum slip test
Vapor Permeability	3g / m ² / 24hrs. @ 9mm ASTM E96: ninety
Water Uptake	(Permeability) Nil Karsten Test
Heat Resistance	5°C to 90°C @ 6 mm - 15°C to 110°C @ 8 mm
Chemical Resistance	Refer to chemical chart
Foot Traffic	12 to 16 hrs.
Heavy Traffic	24 hrs.