

## EVOSHINE – PU CRETE

### Heavy-duty polyurethane flooring system

#### DESCRIPTION

SWADI PU Crete is a four-component polyurethane-concrete flooring system. This flowable system is applied at a thickness of 2 – 6 and forms a smooth surface. The thickness is determined by the service and cleaning temperatures and the severity of traffic expected. SWADI PU Crete is extremely tough and has many physical properties that exceed those of typical concrete. SWADI PU Crete is recommended for conditions requiring the maximum chemical resistance and where a smooth, even and easy to clean surface is required.

#### FEATURES & BENEFITS

- Eco-friendly
- Fast Application
- (Can be applied to 8-day-old concrete/10-day-old) Solvent free Low odour
- Water based system with a high level of mechanical, chemical and water resistance.
- Low maintenance
- Hygienic/safe
- (Non-tainting, non-dusting, monolithic (minimum joints); easy to maintain; microbiologically inert) Seamless. easy to clean system
- Excellent impact resistance at (6 mm) thickness. Can handle heavy traffics.
- Slip-resistant finish

#### APPLICATION

- Textile and film plants
- Food and beverage production
- Warehousing and storage
- Confectionery production
- Electronic component manufacture and assembly
- Pharmaceutical production
- Chemical plants
- Dairy and Milk Products
- Freezer rooms & Refrigerated stores
- Bakeries & confectionery industries
- Hotel kitchens

#### PROPERTIES

The values shown are typical of results obtained in the laboratory at 27° C ± 1 ° C.  
Actual performance values obtained on site may vary from those quoted.

#### **SWADI MINERALS AND CHEMICALS**

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<b>Technical data</b>	
Pot Life	20 minutes
Light traffic	24 hrs
Full traffic	48 hrs
Full chemical cure	7 days
Bond Strength	> 1.5 N/mm <sup>2</sup>
Compressive strength	50 N/mm <sup>2</sup>
Flexural strength	18 N/mm <sup>2</sup>
Tensile strength	07 N/mm <sup>2</sup>
Hardness, Shore D	80-90
Abrasion resistance	Classified 'Special Duty' Under BS 8204 Part 2 : 2002(9)
Slip resistance	Classified 'Satisfactory' Under BS 8204 Part 2: 2002(9), Wet and dry
Impact resistance	Classified 'High Impact Resistance' Under BS 8204: Part 1: 1999

**CHEMICAL RESISTANCE**

SWADI PU Crete is resistant to following chemicals tested for about 7+ days (Immersion Testing)

Dilute mineral acids, including hydrochloric (< 35%), phosphoric (< 50%), and sulfuric (< 30%)
Alkalis, including potassium hydroxide to a 50% concentration
Some dilute organic acids such as acetic (25%), formic, citric, lactic and uric
Fats, oils, and sugars
Mineral oils, diesel fuel, kerosene, and gasoline
Most organic solvents, including aliphatic and aromatic hydrocarbons and alcohol

The results given above are achieved in laboratory tests. Actual results obtained on site may show minor variations from those quoted.

**DIRECTION OF USE****SURFACE PREPARATION**

- The concrete or screed substrate must be hard, sound and free of dust and other

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barrier materials such as paint, lime coatings, plaster, curing agents, laitance, adhesive residues etc. that will inhibit adhesion to the substrate.

- Remove bond-inhibiting materials such as oils, grease, wax, fatty acids, and other contaminants. (This can be accomplished by the use of detergent scrubbing, low pressure water cleaning, steam cleaning, or chemical cleaning. Acids and alkalis can be removed by neutralizing to form a water-soluble salt and then high-pressure water cleaning). Contaminated concrete surfaces should be mechanically prepared, either by grinding or contained shot blasting equipment or similar, and be vacuumed clean prior to applying SWADI PU Crete B504.
- Concrete defects such as voids, bug holes, excess porosity, and physical and chemical damage are usually filled or repaired prior to the installation of the Flooring system. (Materials such as slurries, mortars, and polymer concrete are used to level, smooth and patch concrete surfaces).

#### **PRIMING**

Use suitable primer depending on substrate condition to ensure maximum product performance. Preferably scratch coat of SWADI PU Crete B504 is recommended.

#### **MIXING**

The contents of Part A, Part D pigment sachet and Part B of SWADI PU Crete B504 must be first mixed together for 1 minute, using forced action, in a suitably sized mixing vessel. The contents of Part C the powder component should then be introduced into the mixed resin and mixed together for a further 2 minutes to create one homogeneous mix.

#### **APPLICATION**

For flooring applications, the mixed material should be applied to the prepared and primed surface after 24 hours of priming, using a trowel to achieve the desired thickness. As soon as the product has been laid and as work progresses, the surface should be gently rolled with a spiked roller in order to provide an even surface appearance. Do not re-roll later.

#### **DRYING TIME**

The floor can be returned to full service in 12 – 24 hours at 30° C. Full cure at 28 days.

#### **COVERAGE ESTIMATES**

##### **PACK SIZE COVERAGE**

- Part A 2.52 kg                      3.2 kg/m<sup>2</sup> @ 2 mm thickness
- Part B 2.86 kg                      4.8 kg/m<sup>2</sup> @ 3 mm thickness
- Part C 13.00 kg                      6.4 kg/m<sup>2</sup> @ 4 mm thickness
- Part D 0.5 kg                        9.2 kg/m<sup>2</sup> @ 6 mm thickness

**NOTE:** These figures are theoretical, due to the wastages and the variety and nature of substrates practical coverage figures may be reduced.

#### **SHELF LIFE**

SWADI PU Crete has a shelf life of 6 months at 25° C when properly stored in original, unopened containers.

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**STORAGE CONDITIONS**

Store and transport in unopened containers in a clean, dry area at stable temperatures approximating 5° C to 30°C.

**COLOURS AVAILABLE**

- SWADI PU Crete is available in red, grey, cream, green and yellow (standard colours). Other colours may be available to special order, subject to quantity and technical requirements.
- SWADI PU Crete B504 is a colored polyurethane concrete, colour uniformity cannot be completely guaranteed from batch to batch. Do not mix batches within a single area.
- The final color of SWADI PU Crete, on both interior and exterior application is prone to yellowing effect and may darken/lighten under UV light exposure. This yellowing effect is dependent upon the amount of UV exposure, both in terms of intensity and time, and is more noticeable with lighter colours. The performance of the product, however, will not be affected.

**PRECAUTION**

- This product is for professional use only. The applicators and operators shall be trained, experienced and have the capability and equipment to mix/stir and apply the coatings correctly and according to company's technical documentation.
- Applicators and operators shall use appropriate personal protection equipment when using this product. This guideline is given based on the current knowledge of the product. Any suggested deviation to suit the site conditions shall be forwarded to the responsible company representative for approval before commencing the work

**SAFETY FEATURES**

- Store the container with the lid tightly closed in an upright position, in a cool, dry place
- Keep out of reach of children and away from eatables
- May be harmful if swallowed. In case of ingestion seek immediate medical attention
- Wear eye protection during application. In case of contact with eyes, rinse immediately
- with plenty of water and if required seek medical advice
- As far as possible, direct contact of resin and hardener with the skin should be avoided as they might cause irritant on sensitive skins. It is advisable to wash off immediately in case of skin contact.
- Special barrier creams and cleansing creams are available commercially as additional safeguards. Please refer MSDS for detail safety instructions.

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