SP PUCRETE 100

TECHNICAL DATA

A four-component **Polyurethane - concrete flooring** system.

PRODUCT DESCRIPTION

This is extremely tough and has many physical properties that exceed those of typical concrete. SP PUCRETE 100 is recommended for conditions requiring the maximum chemical resistance and where a smooth, even and easy to clean surface is required.

This flowable system is applied at a thickness of 3 – 6 mm and forms a smooth surface. The thickness is determined by the service and cleaning temperatures and the severity of traffic expected.

ADVANTAGES

- Water based system with a high level of mechanical, chemical and water resistance.
- Hygienic / safe (Non-tainting, non-dusting, monolithic (minimum joints); easy to maintain; microbiologically inert)
- Eco-friendly
- Fast Application (Can be applied to 6-day-old concrete/2-day-old)
- Solvent free Low odor
- Low maintenance
- Seamless easy to clean system
- Excellent impact resistance at (6 mm) thickness. Can Handle heavy traffics
- Slip-resistant finish

APPLICATION

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

TYPICAL 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.

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

* = Typical properties are indicated for information only

DIRECTION FOR USE

SURFACE PREPARATION

Concrete substrates must be sound and of sufficient compressive strength (minimum 20 Mpa) with a minimum tensile strength of 1.5 Mpa

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 SP PUCRETE 100.

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).

Retaining grooves must be prepared to prevent curling of the PU concrete during hardening and curing.
• Open grooves twice as wide and twice as deep as the screed thickness. Use a suitable double blade saw with connection to an industrial vacuum cleaner.
• Retaining groves must be located in the perimeter and throughout horizontal surface of the application area and also around columns, plinths, drains etc. or any singular element that represents a discontinuity in the screed
• All cracks and construction joints present, based on the depth of the crack, should be filled either with epoxy putty or mortar after primer application
• The expansion joints should not be overcoated with the coating and to be addressed with suitable material.

The concrete or screed substrate must be hard, sound and free of dust and other barrier materials such as paint, lime coatings, plaster, curing agents, laitance, adhesive residues etc. that will inhibit adhesion to the substrate.

PRIMING

Use SP PUCRETE 100 for primer / scratch coat application for adequate bonding of subsequent coat.

MIXING

The contents of Resin, colourant sachet and Hardner of SP PUCRETE 100 must be first mixed together for 1 minute, using motorised stirrer in a suitably sized mixing vessel. The contents of Aggregates (the powder component) should then be introduced into the mixed resin and mixed together using motorised stirrer 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 ESTIMATE

Pack size :
Resin: 2.52 kg, Hardner: 3.21 kg, Aggregates: 13.00 kg, Colourant: 0.5 kg

Consumption :
7.6 kg/m2 @ 4 mm thickness
5.7 kg/m2 @ 3 mm thickness
9.6 kg/m2 @ 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.

CHEMICAL RESISTANCE

SP PUCRETE 100 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.

COLORS AVAILABLE

SP PUCRETE 100 is available in **red, grey, cream, green and yellow (standard colors**).

SP PUCRETE 100 is a colored polyurethane concrete, color uniformity cannot be completely guaranteed from batch to batch. Do not mix batches within a single area.

The final color of SP PUCRETE 100, 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 colors. The performance of the product, however, will not be affected.

STORAGE & SHELF LIFE

SP PUCRETE 100 should be stored in a cool and dry place, preferably in the sealed container and should not be exposed to direct sunlight. This product has a shelf-life of 6 months, if stored in its original container between 2°C and 30°C away from humidity and excessive heat.

This may cause pronounced skin irritation, therefore rubber gloves, eye protection creams and breathing mask are recommended. Please refer to the Safety Data Sheet (SDS) for detailed instructions on storage and handling

SAFTEY

Wear protective equipment. Avoid contact with eyes and skin. Safety Data Sheets (SDS) are available on request. SDS are furnished to customers to provide handling and disposal information.

CAUTION

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.

Disclaimer

All recommendations for use of our products whether given by us in writing, verbally or to be implied from the results of tests carried out by us are based on the current state of our knowledge. Although, the information contained in this sheet is accurate, no liability can be accepted in respect of such information. We warrant only that our product will meet the designated specifications and make no other warranty either express or implied, including any warranty of merchantability or fitness for a particular purpose as the conditions of application are beyond our control.

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