

PENTENS SPU-1000

Pure Polyurea Waterproofing Spray Coating



Product Data Sheet

Description

PENTENS SPU-1000 is a solvent free, two-component pure polyurea spray coating. The seamless coating provides an elastic yet tear resistant surface for applications subjected to extreme wear and tear, strong impact and chemical exposure. Except for some yellowing effect, the coating is suitable for outdoor applications.

Uses

PENTENS SPU-1000 is suitable for indoor and outdoor application such as:

- Outdoor and indoor Floor slabs
- Potable water tank lining
- Sewage treatment plants
- Water theme park, Decoration Design, playgrounds
- Secondary Containment for chemical tanks
- Swimming pools and waste water tanks
- Waterproofing
- Pipe / pipeline coating & lining
- Flooring and Parking Decks
- Bridge Coating
- Truck Bed Liners
- Marine
- Line Striping

Advantages

- High elasticity
- Strong and tough, extremely high mechanical properties.
- Seamless
- Chemical resistance – very good resistance to wide range of industrial chemicals.
- Hard wearing
- Outstanding impact resistance
- Non-skid
- Excellent bond strengths to properly prepared substrates
- Fast Set. Return to Service in Minutes (Often Seconds)
- Comply with BS 6920
- Water Regulations Advisory Scheme (WRAS) Approved Product

Technical & Physical Data

Form	Liquid
Color	Any color
Solids	100%
Hardness (Type A/1 sec) ASTM D2240-05	76
Tensile Strength (kgf/cm ²) ASTM D412-06a	> 150
Elongation (%) ASTM D412-06a	> 500
Tear Strength (kgf/cm) ASTM D624-00	> 70
Pull-off Adhesive Strength ASTM D4541	> 20 kgf/cm ² (Substrate: Concrete)
Abrasion Resistance (g) ASTM D4060-07 (H-18, 1000g, 1000 cycles)	< 0.1
Tack free time	30 seconds
Water Resistance (24 hrs) ASTM D543-06	No abnormality
Acid Resistance (23 ⁰ C/5%H ₂ SO ₄ /8hrs) ASTM D543-06	No abnormality
Alkali Resistance (23 ⁰ C/30%NaOH/8hrs) ASTM D543-06	No abnormality
Gasoline Resistance (23 ⁰ C/Unleaded Gasoline#95/48hrs) ASTM D543-06	No abnormality
Heat Resistance (120 ⁰ C/24hrs) ASTM D573-04	No abnormality
Pliability (-40 ⁰ C) ASTM D146-04	No abnormality
Recommended thickness	1.0 to 3.0 mm thick
Mixing Ratio	1 to 1 by volume
Shelf Life	12 months when unopened and damaged
Storage condition	Store in a dry cool place
Packaging	
▪ In pails (A:B=22.5:20)	42.5kg/set
▪ In bulk drums	425kg/set

Important Notes

1. Thoroughly agitate B part (resin blend) before use.

Instruction for Use

Surface Preparation

All the surfaces must be clean, free from grease, oil, laitance, and remove all the dirt and contaminants, which might affect adhesion. The impurity outside the structure body should be cleaned thoroughly. Mask off adjoining surfaces not receiving waterproofing to prevent spillage and overspray affecting other construction.

Any crack or water leakage area should be pre-treated and reinforced with PENTENS Repair System (for more detail, please refer to our Technical Department) before the waterproofing.

Application

This material is designed for application with heated, plural component airless spray equipment. Because of the relatively high viscosity and fast reactivity of this product, pressure of at least 1800psi-2500psi (126-175kg/cm²) are required to ensure satisfactory mixing.

Primer: Priming is required. Prime with PENTENS E-10, E-10F, E-500, E-500SE or other suitable primer @ 0.2kg/m²/coat. Seek advice from Pentens representative for primer option and application technical support.

Sealer: if substrate is porous, apply one layer of PENTENS E-501S as a sealer coat to smooth the surface and avoid pin holes.

Waterproofing: PENTENS SPU-1000

- 1.0mm / 1.10kg /m²
- 2.0mm / 2.20kg /m²
- 3.0mm / 3.30kg /m²

Patch up pinholes, blisters where occurs with PENTENS MPU-111.

UV stable top coat: Pentens NPU-12C.

Substrate Conditions (Concrete surface)

- Hardness: 15 MPa (28 days curing)
- Moisture content: 10% maximum
- Surface temperature: 5 to 30°C
- Relative humidity: max. 85%.

Curing

For optimum performance, PENTENS SPU-1000 should be allowed to cure for 12 hours before the finishing concrete, tiles etc and during this time precautions must be taken in order to prevent damaging to the coating.

Cleaning

Hardened film can only be removed by mechanical means. Liquid components can be removed by using solvent PENTENS SO1. Spray equipment can only be cleaned by using PENTENS SO1 then followed by PENTENS SO4.

Safety

Impervious gloves and barrier cream should be used when handling these products. Eye protection should be worn. In case of contact with eyes, wash thoroughly with plenty of water and seek medical advice if symptoms persist. If contact with skin occurs, it must be removed before curing takes place. Wash off with an industrial skin cleaner followed by plenty of soap and water. Do not use solvent. Ensure adequate ventilation when using these products.

