

# PENTENS MPU-111

## Manual-applied Pure Polyurea Coating



## Product Data Sheet

### Description

**PENTENS MPU-111** is a solvent free, two-component, high performance, cold-applied pure polyurea coating with longer pot life to allow manual applications. The seamless coating provides an elastic yet tear resistant surface for applications subjected to extreme wear and tear, strong impact and chemical exposure.

### Uses

PENTENS MPU-111 is suitable for coating and/or repairing application on small areas, such as:

- Waterproofing
- Pipe / pipeline coating & lining
- Flooring and Parking Decks
- Bridge Coating
- Truck Bed Liners
- Marine
- Line Striping
- As a coating/sealing/repair kit for PENTENS SPU spray coating series

### Advantages

- High elasticity
- Crack bridging
- Strong and tough, extremely high mechanical properties.
- Easy to apply using spatula, roller, trowel or brush
- Self-leveling
- 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

### Technical & Physical Data

Form	Liquid
Color	Any color
Solids	100%
Hardness (Type A/1 sec) ASTM D2240-05	80
Tensile Strength (kgf/cm <sup>2</sup> ) ASTM D638-03	142
Elongation (%) ASTM D638-03	355%
Tear Strength (kgf/cm) ASTM D624-00	70
Abrasion Resistance (g) ASTM D4060-07 (H-22, 1000g, 1000 cycles)	0.25g
Pot life @ 23°C	10 minutes
Tack free time @ 23°C	20 minutes
Initial cure	2 days
Full cure	7 days
Recommended thickness	1.0 to 3.0 mm thick
Mixing Ratio	1 to 1 by weight
Shelf Life	12 months when unopened and damaged
Storage condition	Store in a dry cool place
Packaging	6kg/set (3:3 pbw)
▪ A- isocyanate hardener	3kg/can
▪ B- resin blend	3kg/can

### 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.

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 to allow manual applications due to its longer pot life. It is cold-applied and it does not require specialized hot spray equipment.

For optimum performance and adhesion, PENTENS MPU-111 should always be applied to a dry and primed surface.

**Primer:** Priming is required. Prime with PENTENS E-10, E-10F, E-500, E-500SE or other suitable primer @ 0.2kg/m<sup>2</sup>/coat. Seek advice from Pentens representative for primer option and application technical support.

PENTENS MPU-111 is packed in pre-weighted set. Mixing ratio is 1:1 (pbw).

Never mix more material than can be applied within the pot life of the product: 10 minutes at 23°C.

Measure the required amounts of A- and B-component in separate, designated and clean measuring cups. Take a clean container and fill with the required amount of MPU-111 A-component. Add the same volume of MPU-111 B-component while mixing.

Thoroughly mix both components for 1 minute with an electrical or pneumatic power stirrer with approximately 300 rpm until a homogeneous mixture and color has been reached. After mixing,

apply MPU-111 directly to the surface by pouring and leveling with a spatula, roller, brush or trowel. Apply MPU-111 in minimum 2 coats in crisscross application to obtain optimum coverage. Maximum layer thickness is 2 mm per coat.

Apply the second layer when the first layer is sufficiently strong to support the application of the next layer. Recoat times can be influenced by ambient or substrate temperatures. Minimum recoat time is 1 hour.

Consumption: PENTENS MPU-111

- 1.0mm / 1.0kg /m<sup>2</sup>
- 2.0mm / 2.0kg /m<sup>2</sup> (Light traffic)
- 3.0mm / 3.0kg /m<sup>2</sup> (Heavy traffic)

### Substrate Conditions (Concrete surface)

- Compressive strength: 15 MPa (minimum)
- Moisture content: 10% (maximum)
- Surface temperature: 5 to 30°C
- Relative humidity: max. 85%.

### Curing

For optimum performance, PENTENS MPU-111 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 PENTENS SO1.

### 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.