

# PENTENS PU-600

## Product Data Sheet

### Super Elastic Eco-Polyurethane Waterproofing Coating

#### Description

PENTENS PU-600 is a water-based, low VOC, modified polyurethane-based waterproofing coating with functional filler and aggregate.

#### Uses

PENTENS PU-600 which is one-part elastomeric self-crosslinking PU copolymer emulsion designed to be used as exposed waterproofing coating on:

- RC gutters
- Floor slabs
- Decks
- External walls
- Flat roofs
- Concrete structures
- Steel surfaces

#### Advantages

- **Easy to apply** - PENTENS PU-600 is a one component, environmental friendly coating.
- **No more hair-line cracks** - PENTENS PU-600 is super elastic which can seal the cracks of concrete structures on roofs and exterior walls.
- **Energy-saving coating** - PENTENS PU-600 contains high solar reflective ceramic powder which can effectively reduce the surface temperature of roofs and walls to reduce the energy consumption of buildings.
- **Exterior decorative paint** - PENTENS PU-600 is excellent for weather resistance, anti-dirt and easy to clean.
- High elasticity.
- Environmentally friendly.
- Seamless.
- Adheres well over aged, galvanized and metal roofs, wood, asphalt or aluminum coatings, polystyrene foam insulation, polyester plastic panels, precast flat concrete and barrel cement tiles and many roofing materials.
- Weather resistant.
- Non-toxic.

#### Technical & Physical Data

|  |                               |
|--|-------------------------------|
| Appearance                             | High viscosity paint          |
| Color                                  | White, Grey, Green            |
| Resin Base                             | Modified polymer              |
| Density<br>(ASTM D792-13)              | 1.311 ± 0.1 g/cm <sup>3</sup> |
| Elongation<br>(ASTM D412-06ae2)        | >526%                         |
| Tensile Strength<br>(ASTM D412-06ae2)  | >52kgf/cm <sup>2</sup>        |
| Crack Bridging<br>(ASTM C836/C836M-12) | >2.0mm                        |
| SRI Index (white)<br>(ASTM E1980-11)   | 107                           |
| Thermal Coefficient<br>(ASTM C518-10)  | 0.0235 W/m.K                  |
| Chemical Resistance<br>(ASTM D1308-02) | All samples no visible damage |
| 10% Sulfuric Acid                      |                               |
| 10% Hydrochloric Acid                  |                               |
| 20% Nitric Acid                        |                               |
| 30% Phosphoric Acid                    |                               |
| 30% Sodium Hydroxide                   |                               |
| 10% Acetic Acid                        |                               |
| 20% Aluminum Hydroxide                 |                               |
| Engine Oil                             |                               |
| Lubricating Oil                        |                               |
| Brake Oil                              |                               |
| Lemon Oil                              |                               |
| Orange Oil                             |                               |
| Apple Juice                            |                               |
| Recoat Period                          | 2 ~ 4 hrs                     |
| Full Cured                             | 7 day                         |
| Application Temp.                      | 5°C ~ 40°C                    |
| Temp. Resistance                       | -20°C ~ 60°C                  |
| Pot Life                               | 1 year                        |
| Storage                                | Store in cool place           |
| Packaging                              | 20kg /pail                    |

#### Important Notes

1. Minimum ambient and substrate temperature is 5°C.
2. Never apply more than 1kg/m<sup>2</sup> of PENTENS PU-600 in one single layer.

## Instruction for Use

### Surface Preparation

Surface must be sound, dry and clean (free from dirt, gravel, pollution, mildew and all foreign materials). Do not apply if rain is imminent. Flashings, damaged areas, cracks and old bitumen joints shall be repaired first. All the surfaces must be thoroughly cleaned before applying PENTENS PU-600.

Remove any gravel, applied previously. Removing gravel will greatly reduce the weight load on the roof and provide a firm surface for the new coating.

Sweep and vacuum or power wash surface to remove dirt and dust. Cut out roof blisters and repair with acrylic embedded in polyester fabric or polymer concrete.

Remove mildew with sodium hypochlorite or other algaecide. Fill any other gaps with silicon impregnated latex caulk. Any loose shingles should be gently lifted and glued along with the roofing cement.

### Application

#### New Concrete Substrate / Metal Sheet

Substrate should be primed with a 1:3 mixture of PENTENS T-007 and water. Brush this diluted primer onto the substrate at an approximate rate of 0.2kg/m<sup>2</sup>.

#### Old Concrete Substrate / Tile / Natural Stone

Substrate should be primed and sealed with a 3:1 mixture of PENTENS F-888 and water. Brush this mixture at an approximate rate of 1~2kg/m<sup>2</sup>.

#### On areas exposed to hot drying winds

2 to 3 thin coats of PENTENS PU-600 may work better than having only 1 thick coat.

PENTENS PU-600 is recommended to be applied at least twice. The first coat should be applied from one direction only. If possible, the second coat should be applied from a different angle. Leave it to cure for approximately 8 hours before applying the second coat. PENTENS PU-600 can be applied using conventional airless spray equipment, brush or roller.

## Consumption

### Coating and roof coating system:

Primer: Pentens T-007 (0.2kg/m<sup>2</sup>)

Total consumption : 1.00kg - 1.60kg/m<sup>2</sup> (2 coats)

Total thickness : 0.5mm - 0.8mm

### Waterproofing reinforced system :

Reinforced with a layer of Pentens ACW-015 fiber glass or chopped strand fiber glass mat and seal with Pentens PU-600 system.

Primer : Pentens T-007 (0.2kg/m<sup>2</sup>)

Total thickness : 1.20mm - 1.80mm

Total consumption : 2.25kg - 3.40kg/m<sup>2</sup> (3 coats)

For more details, please refer to PENTENS Technical Department.

## Curing

Allow the coating to cure thoroughly before applying the next coat. Wait for approximately 8 hours as the timing relies on the surrounding temperature, humidity and wind conditions.

## Note

The best method to ensure good penetration of the first coat into the surface is by applying with a roller. Subsequent coats may be applied by spray or roller.

## Cleaning

Tools and equipment can be easily cleaned with water immediately after use. Hardened material can only be mechanically removed.

## Safety

PENTENS PU-600 is non-toxic. For personal precaution, wear gloves and goggles when handling PENTENS PU-600. If contact with eyes occurs, rinse immediately with clean water and seek medical advice if symptoms persist.

**PENTENS**

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