

Description

PENTENS Roof Polyurethane EW-02 System is a two-component solvent free, aliphatic PU coating system is designed specifically for exposed roof slab use. This is Eco-Friendly waterproofing system material.

The cured film forms a hard but flexible coating with excellent adhesion to clean concrete, sand/cement and granolithic screeds, and certain metal surfaces. It cures to a semi-gloss, impervious finish, which is easily cleaned.

Uses

To provide a hardwearing, easily cleaned, attractive floor coating in areas where high resistance to chemical attack is required. It is suitable for use in;

- Roof Slab
- Exposed decks

Advantages

- Highly UV Stable.
- Excellent color retention, non-yellowing
- Low VOC
- Low maintenance cost.
- Easily cleaned surface.
- Hygienic - impervious finish provides easily cleaned surface. (Such as acid, alkali, solvent and etc.).
- High resistance to weathering and blistering
- Additional features like termite-free, stain resistant and anti-sticking.
- Easy clean-up using water
- Resistant to water ponding.
- Available in a wide range of colors.
- Low viscosity.
- Fast curing properties.

Design Criteria

PENTENS Roof EW-02 system is designed for application in multiple layers to achieve an approximate total dry film thickness of 2000-3000 microns (2-3 mm).

Layer Design as follows:

1. Primer (Water-based)
2. Intermediate Coat (PENTENS T-200H with Polyester Fiber Glass)
3. Top Coat (Water Based Nano Polyurethane PENTENS NPU-12)

Technical & Physical Data

The values given below are average figures achieved in laboratory tests. Actual values obtained on site may show minor variations from those quoted.

Appearance (mixed)	Brushable/ rollable/ Sprayable uniform liquid in color
Finish	Matte/ Doff
Pot life @ 25°C	45 – 60 minutes
Re-coat time	6 hours @25°C and 50% RH
Full Cure @25°C	3 days
Elongation (ASTM D 412)	300%
Tensile Strength (ASTM D 412)	55 kgf/cm ²
Drying Time (touch dry)	4 hours
Water Resistance in 100% RH, 24 hours	Unaffected
Chemical Resistance (5% H ₂ SO ₄ / 24 hours)	Unaffected
Heating Residue	65%
Light Exposure (Fluorescent UV Condensation Light)	Unaffected
Dry film thickness (5 Layer)	2000 - 3000 microns (approx.)
Storage:	Store in a dry cool place
Shelf life:	1 year when unopened and undamaged
Packaging Clear: Pigmented:	NPU-12TA: 10 kg/pail NPU-12TB: 1 kg/can NPU-12A: 10 kg/pail NPU-12B: 0.5 kg/can
Consumption	Approx. 0.15-0.2 kg/m ² (topcoat)

Application Instructions

Surface preparation

It is essential that PENTENS Roof Polyurethane EW-02 System is applied to sound, clean, dry substrates in order to achieve maximum adhesion between the floor coating and substrate.

The substrate must be fine textured. Any surfaces irregularities may show through causing excessive wear on high spots and changing the perceived color of the coating.

Mixing

PENTENS Roof Polyurethane EW-02 System must be mixed homogeneously prior to application, using an electrical or pneumatic power stirrer until a homogeneous mix is achieved.

Application

Substrate should be primed with water-based primer.

For the intermediate layer is suggested to apply at least 2 coats with fiberglass. The first coat of PENTENS T-200H should be applied in one direction only. The second layer apply the fiber glass. Then the third layer of PENTENS T-200H applied. Can be installed with conventional airless spray equipment, brush or roller. On concrete roof with fiber: 1.5 – 2 kg/m²/2 layer

For the top coat, the mixed of PENTENS NPU-12 should be applied to the prepared surface by using brush or lamb wool roller or spray equipment.

The second coat may be applied as soon as the first coat has initially dried (typically 4 to 6 hours). The time will be dependent on the type of surface and the ambient conditions.

Coverage

Approximately (for top coat) 6~10 square meters per kg, depending on the porosity of the substrate.

Cleaning

PENTENS Roof Polyurethane EW-02 System should be removed from tools and equipment with warm water immediately after use.

Safety

PENTENS Roof Polyurethane EW-02 is non-toxic. For personal precautions, applicators are recommended to wear gloves and goggles when handling.

