

Description

PENTENS Roof-603 Pure Polyurethane EW-01 System is a two-component solvent free, aliphatic PU coating system is designed specifically for exposed roof slab use.

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.
- Super adhesive strength.
- Low maintenance cost.
- Hardwearing and chemically resistant to a wide range of chemicals, mild acids and alkalis.
- Easily cleaned surface.
- Hygienic - impervious finish provides easily cleaned surface. (Such as acid, alkali, solvent and etc).
- Resistant to wear ponding.
- Available in a wide range of colors.
- Low viscosity.
- Fast curing properties.

Design Criteria

PENTENS Roof-603 Pure Polyurethane EW-01 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 (Solvent free or Water-based)
2. Waterproofing Layers (E-500 Flex Or T 200H With Polyester Fiber)
3. Top Coat Aliphatic Polyurethane 2x Coating

Technical & Physical Data:

The values given below are average figures achieved in laboratory tests at 20°C and 35°C. Actual values obtained on site may show minor variations from those quoted.

	@20°C	@34°C
Pot life*:	3 hrs	1 hrs
Tack free time:	3-4 hrs	2-3 hrs
Time between coats:	4-24 hrs	3-16 hrs
Initial hardness:	24 hrs	18 hrs
Full cure:	7 days	5 days
Dry film thickness (5 Layer)	3000 microns (approx)	
Storage:	Store in a dry cool place	
Shelf life:	1 year when unopened and undamaged.	
Packaging: PU 603 A : PU 603 B	20kg pail	10kg pail
Curing time	~Foot traffic after 6hrs	
Consumption	0.3~0.5kg/m2 (topcoat)	

Chemical properties

PENTENS Roof-603 Pure Polyurethane EW-01 System is resistant to a wide range of chemicals. Specific data is available on request.

Good housekeeping is essential in areas where chemical spillage is likely to occur. It is especially important that such spillage should not be allowed to dry since very much higher concentrations of chemicals will then result.

Maintenance

The service life of a floor can be considerably extended by good housekeeping practices. Regular cleaning of PENTENS Roof-603 Pure Polyurethane EW-01 System may be carried out using a rotary scrubbing machine with a water miscible cleaning agent or by hot water washing at temperatures up to 50°C.

Specification clauses

The floor coating shall be PENTENS Roof-603 Pure Polyurethane EW-01 System, a two-component solvent free PU suitable for application by brush or lambs wool roller. The coating shall be applied in multiple layers to achieve a total dry film thickness of approximately 2-3 mm by system.

Application Instructions

Surface preparation

It is essential that PENTENS Roof-603 Pure Polyurethane EW-01 System is applied to sound, clean, dry substrates in order to achieve maximum adhesion between the floor coating and substrate.

PENTENS Roof-603 Pure Polyurethane EW-01 System is a relatively thin coating, the substrate must be fine textured. Any surfaces irregularities may show through causing excessive wear on high spots and changing the perceived colour of the coating.

New concrete floors

Unless specially water-reduced, the floor should be at least 28 days old and give a hygrometer reading not exceeding 75%RH and primed with a PENTENS FloorShield SF Solvent Free primer.

Old concrete floors

A sound, clean substrate is essential to achieve maximum adhesion. Light grit blasting or acid etching should be carried out as for new concrete floors. Oil and grease penetration should be removed by hot compressed air treatment and primed with PENTENS Water Based Primer E-10..

Steel substrates

Steel substrates should be grit blasted to surface quality and primed with a epoxy zinc rich primer.

Mixing

PENTENS Roof-603 Pure Polyurethane EW-01 System must be mixed homogeneously prior to application, using an electrical or pneumatic power stirrer with approximately 300-400 rpm, mixing time is minimum 3-4 minutes but depending on the circumstance it may take longer until a homogeneous mix is achieved.

Coating

The mixed PENTENS Roof-603 Pure Polyurethane EW-01 System should be applied to the prepared surface using a brush or lambs wool roller.

The second coat may be applied as soon as the first coat has initially dried (typically 6 to 8 hours). The time will be dependent on the type of surface and the ambient conditions.

Cleaning

PENTENS Roof-603 Pure Polyurethane EW-01 System should be removed from tools and equipment with thinner immediately after use. Hardened material can only be removed mechanically.

Limitations

PENTENS Roof-603 Pure Polyurethane EW-01 System should not be applied onto surfaces known likely to suffer from:

Temperatures below 5°C

- Rising damp.
- Relative humidity greater than 75%RH.
- Applied to asphalt floor & PVC tiles or sheet.
- Construction Joints.

Safety

PENTENS Roof-603 Pure Polyurethane EW-01 System should not come into contact with skin and eyes or be swallowed. Ensure adequate ventilation and avoid inhalation of vapors. Some people are sensitive to resins, hardeners and solvents, Wear suitable protective clothing, gloves, and eye protection. If working in confined areas, suitable respiratory protective equipment must be used. The use of barrier creams provides additional skin protection. In case of contact with skin, rinse with plenty of clean water, then cleanse with soap and water. Do not use solvent. In case of contact with eyes, rinse immediately with plenty of clean water and seek medical advice. If swallowed, seek medical attention immediately – **do not** induce vomiting.

PENTENS Roof-603 Pure Polyurethane EW-01 System is flammable. Keep away from sources of ignition. No smoking in the event of fire, extinguish with CO₂ or foam. Do not use a water jet.



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