

**ONE-PART SILENE MODIFIED POLYMER ELASTIC WATERPROOFING COATING**

**DESCRIPTION**

SIMP® COAT 25 is a premium, liquid and cold applied, one-part, Silyl-Terminated Polymer, elastic, waterproofing membrane, free of bitumen, solvent and isocyanates (IT IS NOT POLYURETHANE). It cures by reaction with the moisture of the environment to form a good protective and self-leveling coating, ideal for surfaces to be overcoated.

**RECOMMENDED FOR**

SIMP® COAT 25 is ideal for protection, maintenance, repair, restoration and waterproofing in both new or existing construction of:

- ▶ Balconies and terraces
- ▶ Large horizontal surfaces form concrete or mortars
- ▶ Shingles, metal and flexible roofs and coverings
- ▶ By injection as filling material
- ▶ Protection of Polyurethane Foam Insulation
- ▶ Waterproofing of Wet Areas (under-tile) in bathrooms, kitchens, balconies, auxiliary rooms, etc
- ▶ Sealing on joints of chimneys, gutters, skylights, form various materials such as concrete, metal masonry, wood etc
- ▶ Industrial metal roofs
- ▶ Traditional inclined roofs: shingles, tiles, stones
- ▶ Protection of masonry and vertical surfaces

**ADVANTAGES**

- ▶ One component. Ready-to-use
- ▶ Good resistance to water and moisture
- ▶ Applicable also on damp surfaces
- ▶ Self-leveling (spreads to the surface)
- ▶ Applicable by brush, roller, spatula or airless pumps
- ▶ Provides water vapor permeability, allowing the surface to breathe
- ▶ Cost efficient life cycle extension of failing roofs in general
- ▶ Environmental friendly – Free of bitumen, isocyanates and solvents
- ▶ No Hazard symbol required

**TECHNICAL CHARACTERISTICS**

Type	Self-leveling paste
Color	Light Grey ( RAL 7035)
Density	90.52 ± 1.25 lb/ft <sup>3</sup> (1.45 ± 0.02 kg/Lt)
Chemical nature	SiMP - Silyl Terminated Polymer - Hybrid Technology
Curing mechanism	Moisture-curing
Application temperature	41 to 104 °F (5 to 40 °C)
Temperature resistance	-40 to 212 °F (-40 to 100 °C), with brief points at 302 °F (150 °C)

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**Technical data of SiMP® COAT 25**

Characteristics	Test Result	Test Method
<i>Elongation</i>	220 %	ISO 37 DIN 53504
<i>Tensile strength</i>	1,6 N/mm <sup>2</sup>	ISO 37 DIN 53504
<i>Shore A hardness</i>	28 N/mm <sup>2</sup>	DIN 53505
<i>Water vapor permeability</i>	33 g/m <sup>2</sup>	ISO 9935:91
<i>Elastic modulus at 100%</i>	1 N/mm <sup>2</sup>	ISO 37 DIN 53504
<i>Tack-free time</i>	45 min	At 73 °F (23 °C) and RH 50%

**Chemical Properties of SiMP® COAT 25**

- Good to water, aliphatic solvents, oils, greases, diluted inorganic acids and alkalis
- Moderate to esters, ketones and aromatics
- Not resistant to concentrated acids and chlorinated hydrocarbons

All data are average values obtained under laboratory conditions. Impractical use, temperature, humidity and absorption of the substrate may influence the above given values.

**DIRECTIONS FOR USE**

**Surface Preparation:** The surface needs to be clean and sound, free of any contamination, which may harmfully affect the adhesion of the coating. The surface must also be thoroughly cleaned from water puddles, prior to application. Remove all loosing materials. New concrete structures need to dry for at least 28 days. Old coatings, dirt, fats, oils, organic substances and dust need to be removed by a grinding machine and any cavities or damage to the substrate, should also be repaired with the appropriate repairing mortars. Existing cracks and joints must be sealed, before the application, for long lasting waterproofing results. Any loose surface pieces and grinding dust need to be thoroughly removed. The substrates must be prepared, in accordance with the PENETRON instructions. Contact PENETRON ROMANIA for further recommendations and guidance, regarding adhesion on specific surfaces.

**Expansion joint sealing:** Prime the expansion joints with the appropriate primer (U-SEAL 110 for porous substrates). Apply a polyethylene backing rod, of the appropriate section (PENETRON® BACKING ROD) inside the joint and fill the joint with the appropriate sealer, U-SEAL or SiMP® SEAL, indicatively.

Existing cracks and joints must be sealed, before the application, for long lasting waterproofing results.

**NOTE:** Contact PENETRON ROMANIA for further recommendations and guidance, regarding your project.

**Application:** Apply SiMP® COAT 25, ready-to-use, evenly and completely enclosed in one or two layers, manually with a roller or brush. Spread or pour SiMP® COAT 25 in lanes directly on the surface and subsequently spread through a short pile roller (roller for epoxy/polyurethane paints). The second layer is applied after complete drying of the first layer. It is highly recommended to apply the second layer on the next day. For large areas and professional applications, it can be sprayed by airless pump, allowing a considerable saving of manpower. Furthermore, it can be applied with a flat trowel for horizontal surfaces.

In particularly crack-prone or other problem areas, like wall-floor connections, 90° angles, chimneys, pipes and waterspouts (siphon), the application of the geotextile FABRIC, soaked and saturated in SiMP® COAT 25, in the first wet layer, is recommended. Press FABRIC firmly with a roller. The second layer is applied over FABRIC, after complete drying of the first layer. It is highly recommended to apply the second layer on the next day.

In case patency is needed, medium or high, full coverage with quartz aggregates (indicative granulometry QUARTZ SAND MIX 0,1 – 0,45 MM or QUARTZ SAND MIX 0,4 – 0,8 MM) with consumption 2 – 4 kg/m<sup>2</sup> could be made. The coverage should be made in the second layer of SiMP® COAT 25 while the surface is still fresh, or, preferably, in the third layer (sacrificial layer), where the indicative consumption of SiMP® COAT 25 is 0,5 kg/m<sup>2</sup>. The next day, and after the absorption of quartz excess, using an industrial vacuum cleaner, it is possible to cover with one or two layers of a suitable protective coating.

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The application of PENECOAT™ PU-H (aliphatic paint), is suggested, with indicative consumption on quartz 0,250 – 0,300 kg/m<sup>2</sup> per layer. The second layer is applied after 2-4 hours.

**Finishing:** For a color-stable and chalking-free surface, with medium traffic, apply one or two layers of the PENECOAT™ PU – L over SiMP® COAT 25.

**Coverage:** *Indicatively:* 0.27 – 0.31 lb/ft<sup>2</sup> (1.3 – 1.5 kg/m<sup>2</sup>) in two layers. The use of FABRIC is expected to double the coverage of SiMP® COAT 25 per m<sup>2</sup>.

**SPECIAL CONSIDERATIONS**

On many clean substrates, a good adherence can be achieved without adhesion promoter. However, it should always be tested, if the surface is stable or needs a suitable primer to stabilize it.

In the case of application to a damp surface which expose to the UV radiations, there is a risk of "bubbling" of the material due to high water vapor pressure. This phenomenon is avoided by the proper placement of evaporators. Indicatively one per 215 – 269 ft<sup>2</sup> (20-25 m<sup>2</sup>) of surface.

In case of waterproofing of large areas, with high moisture content, the use of evaporators, one per 215 – 269 ft<sup>2</sup> (20-25 m<sup>2</sup>) of surface, is highly recommended.

For long-term exposure of SiMP® COAT 25 in UV radiation and outdoor environment, SiMP® COAT 25 should be protected (refer to the direction for use).

SiMP® COAT 25 may be over-painted, however, due to the large number of paints and varnishes available, we strongly suggest a compatibility test, before application. The drying time of alkyd resin based paint may increase.

Once opened, packs should be used up within a relatively short time.

Clean tools with acetone or alcohol immediately after use. Cured material can only be removed mechanically.

Contact PENETRON ROMANIA for further information, regarding your project.

**PACKAGING**

SiMP® COAT 25 is available in 31 lb (14 kg) pail packaging, in Alu-bags of 15,5 lb (7 kg) (2 Alu-bags per pail) and in pails of 1 kg.

**STORAGE / SHELF LIFE**

SiMP® COAT 25 can be stored for 12 months in its original packing (unopened container) at 41 – 77 °F (5 – 25 °C) in a cool, dry place. The storage temperature should not exceed

77 °F (25 °C) for extended periods of time. Keep away from wet areas, direct sunlight and heat sources.

**SAFE HANDLING INFORMATION**

Keep out of reach of children. If skin contact occurs, remove immediately and wash with soap and water. If eye contact occurs, wash immediately with plenty of water and seek medical attention. The use of protective gloves and goggles is recommended during application. Always consult the Material Safety Data Sheet before using the product.

**WARRANTY – DISCLAIMER**

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