



# Waterproofing SWAN MONOPAL

## Technical Data Sheet

Reviewed: 12.07.2024



### DESCRIPTION

**SWAN MONOPAL** is a one component, high performance liquid-applied, pure acrylic, waterproofing material with excellent resistance to weather conditions. It is suitable for weatherproofing old and new building surfaces. Forms an elastic seamless vapor permeable membrane without joints with excellent resistance to humidity as well as high temperatures and UV rays.

### ADVANTAGES

- Elastic, seamless, vapor permeable and reflective membrane without joints
- Excellent elasticity – at least 300%
- Superior adhesion on most building surfaces
- Excellent water/humidity resistance
- Maintains its mechanical properties over a temperature span of -10°C to +70°C
- Excellent resistance to ageing and UV rays
- User and environmentally friendly - waterbased
- Easy to apply (one component – ready to use material)

### APPLICATIONS

- Waterproofing of rooftops and terraces
- Waterproofing of gutters, domes, cornices, ondulated panels etc
- Waterproofing bitumen and polyurethane hard foam surfaces
- Suitable for concrete surfaces, bitumen material, stone, brickwork, PVC, polyurethane foam, plaster, metal etc

### INSTRUCTIONS FOR USE

#### Substrate preparation

Careful surface preparation is very important for optimum finish and durability.

- The surface needs to be clean, dry, sound and free of any contamination that may harmfully affect the adhesion of the membrane.
- Maximum substrate moisture content should not exceed 5%.
- New concrete structures need to dry for at least 28 days.
- Old, loose coatings, dirt, fats, oils, organic substances and dust need to be removed by mechanical means such as a sanding machine. Possible surface irregularities need to be smoothed.

### Repair of cracks

The careful sealing of cracks and joints before the application is extremely important for long lasting waterproofing results.

1. Carefully clean cracks and joints from dust, grease, loose debris.
2. Capillary and small cracks up to 3mm must be primed with **ISOCRYL PRIMER DUR AQUA** waterbased primer or **ISOCRYL PRIMER DUR** solvent-based primer and allow drying. Apply a layer of **SWAN MONOPAL**. Immediately apply on wet surface polyester fabric (capillaries) or fiberglass tape (small cracks) 30 – 60 gr/m<sup>2</sup> respectively and again two more successive layers of **SWAN MONOPAL**.
3. Cracks from 3mm to 20mm and expansion joints are primed with **PRIMER PU 900** and then sealed with polyurethane sealant **BONDFLEX 290LM**.
4. Larger cracks and holes are closed – smoothed with the fiber-reinforced repair cement mortar **ISOMIX MECHANIC R4** and after the cement has dried apply polyester fabric and two layers of **SWAN MONOPAL**.
5. Assembly points such as water heater bases, air conditioners, stairs, antennas, etc. must be sealed with a thick layer of **ISOCRYL REPAIR** thixotropic, fiber reinforced roof coating and allow drying before proceeding with the application of **SWAN MONOPAL**.

### Priming

1. Prime absorbent surfaces like concrete, cement screed with solvent based primer **ISOCRYL PRIMER DUR**, or waterbased primer **ISOCRYL PRIMER DUR AQUA**. Allow drying for 2 – 4 hours.
2. Prime non-porous or difficult surfaces (metal, ceramic tiles, plastics) with **EPOXITE DUR AQUA**.

### Application

1. Apply **SWAN MONOPAL** on the primed surface diluted 10% with clean water, using a brush, roller or spray gun. Allow drying for 12 – 14 hours
2. Apply a second layer crossways to the first layer, diluted up to max 5%.
3. For extra protection or where required a third layer may be applied.
4. Surfaces can be walked on at least after 24 – 48 hours. New treated surfaces exhibit a tackiness at the beginning, which disappears in due time.
5. For best results, the temperature during application and cure should be between 8°C and 35°C. Application must be avoided when rain or frost is expected. Make sure that the surface temperature is between 5°C and 35°C as direct sun exposure can increase this to more than 50°C.

### CLEANING

Clean all tools and equipment with water and soap right after applications. Cured material can be removed only by mechanical means.

### COVERAGE

1 – 1,5 kg/m<sup>2</sup> for 2 layers on smooth surfaces

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**RECOMMENDATION:** We recommend reinforcement of the entire surface, with fiber cloth, by applying one coat before the reinforcement and 2 coats after. On surfaces with frequent pedestrian traffic, apply a layer of **DRYMAX POLYURETHANE TOPCOAT** after **SWAN MONOPAL** to increase abrasion resistance.

**ATTENTION:** Do not apply **SWAN MONOPAL** over 0,5 mm thickness per layer (0,5Lt/m<sup>2</sup>). For best results, the temperature during application and curing should be between 8°C and 35°C. Low temperatures delay curing while high temperatures speed up curing. High humidity may affect the final finish. Do not apply **SWAN MONOPAL** in negative temperatures or when rain or frost is imminent within the next twenty-four hours.

### LIFE EXPECTANCY

**SWAN MONOPAL** offers a predicted waterproofing duration of 5 years by strictly following its application instructions (substrate preparation, priming, application) using reinforcing fibernet on the entire surface: 50 – 90 gr/m<sup>2</sup> and application of the material in at least three layers with a minimum consumption of 1,5kg/m<sup>2</sup> or 1kg/m<sup>2</sup> with an additional coat of the water-based aliphatic **DRYMAX POLYURETHANE TOPCOAT**. Check the quality of the surface regularly, as in case the membrane is damaged locally by dropped objects or other inappropriate use it will have to be repaired locally with the material itself.

### TECHNICAL CHARACTERISTICS

**Base:** Acrylic emulsion

**Form:** Visous liquid

**Color:** White & Ceramic Red

**Smell:** Characteristic of acrylic emulsion

**Density:** 1,40 ± 0,02 gr/ml ASTM D-1475

**PH:** 8-9

**Solid content:** >60%

**Water Vapor Permeability:** >19 gr/m<sup>2</sup>/day ISO 9932:91

**Resistance to stagnant water after 7 days:** No difference  
ASTM D-870

**Bending Test (F 2 mm):** No cracks ASTM D-522

**Elongation at Break:** >300% ASTM D-412

**Tensile Strength:** 1,3N/ mm<sup>2</sup> ASTM D 412

**Resistance to Water Pressure:** No Leak (1m water column,  
24h) DIN EN 1928

**Adhesion to concrete:** >1,5 N/mm<sup>2</sup> (concrete surface failure)  
ASTM D 903

**Hardness (Shore A Scale):** >42 ASTM D 2240 (15")

**Uniformity after 72h at 23 °C:** No water separation or settlement  
after moderate stirring ASTM D-2824

**Consistency:** Good application by spray, roller or brush

**Application temperature:** 8°C έως 35°C

**Light Pedestrian Traffic Time:** 24 hours, 20°C, 50% RH

**Final Curing time:** 7 days, 20°C, 50% RH

**VOC (Volatile Organic Compounds) CONTENT:** (Directive 2004/42/CE) EU maximum VOC content limit values for this product (category A/c(WB): "Exterior walls of mineral substrate"): 40 gr/lit (2010). This product contains maximum 28 gr/lit VOCs (ready for use product).

### STORAGE

Store in dry and cool storage conditions at temperatures 5°C - 35°C. Protect from moisture, frost and direct sunlight.


### SHELF LIFE

At least 24 months in unopened containers. Products should remain in their original unopened containers, bearing the manufacturers batch number.

### PACKAGING

White 4kg, 12kg

PACKAGING	CODE	BARCODE
<b>White</b>		
4Kg	60801	5204094031253
12Kg	3127	5204094031277
<b>Ceramic Red</b>		
4Kg	3409	5204094034094
12Kg	3410	5204094034100



### HEALTH AND SAFETY INFORMATION

Consult recent Safety Data Sheet before application.

The directives contained in this technical data sheet are the result of our long experience from real life applications and the research testing of our research and development laboratory and have been submitted in good faith. Because of the diversity of the materials and substrates and the great number of possible applications, which are beyond our control, we cannot accept any responsibility for the results obtained. In every case it is recommended to carry out preliminary experiments. We are liable only for our products for being free from faults and of consistent quality. Users are responsible for complying with local legislation and for obtaining any required approvals or authorizations. The present edition of this technical datasheet automatically cancels any previous ones concerning the same product.



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