

## MARITHAN®

TECHNICAL DATA SHEET

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### Liquid-applied polyurethane waterproofing membrane

#### Product description

The MARITHAN® is a liquid-applied, highly permanent elastic, cold applied and cold curing, water based, one component, modified polyurethane membrane used for long-lasting waterproofing.

When the MARITHAN® is applied, it forms a hydrophobic, 100% waterproofing, permanent elastic, seamless membrane without joints or leak possibilities, that protect old and new structures efficient and on a long-term basis.

The MARITHAN® is based on the innovative **PUD-Technology** of MARIS POLYMERS SA.

#### Uses

- Waterproofing of Roofs
- Waterproofing of Balconies and Terraces
- Waterproofing of Decks
- Waterproofing of Wet-Areas (under tile)
- Waterproofing and protection of Concrete constructions.
- Waterproofing and Protection of Drywall and Cement-boards
- Protection of Polyurethane Foam Insulation

#### Advantages

- Simple application (roller or airless spray).
- When applied forms seamless membrane without joints.
- UV stable.
- Suitable for exposed surfaces.
- Resistant to water.
- Resistant to frost.
- Maintains its mechanical properties over a temperature span of -20°C to +80°C.
- Provides water vapor permeability.
- Full surface adherence without any additional anchoring.
- The waterproofed surface can be walked on (domestic use).
- Even if the membrane gets damaged, it can be easily repaired locally within minutes.
- Low cost

#### Consumption

1– 1,5 kg/m<sup>2</sup> applied in two or three layers.  
This coverage is based on application by roller onto a smooth surface in optimum conditions. Factors like surface porosity, temperature and application method can alter consumption.  
In case of entire area MARISEAL® FABRIC reinforcement, consumption increases.

#### Colors

The MARITHAN® is supplied in white, grey and terracotta red.

#### PUD Technology™: The Green revolution in Polyurethane



The MARITHAN® is based on the innovative **PUD Technology™** of MARIS POLYMERS SA, which enables, long-chain polyurethane macromolecules to be incorporated in a water medium, forming stable dispersions.

The **PUD Technology™** based products, have the advantage that they offer the high level properties of solvent based products, in an ecological, consumer and environmentally friendly, water-based, low VOC, no ADR transport product.

The **PUD Technology™** is the entry to the Green revolution in Polyurethane based products.

#### Technical data\*

PROPERTY	RESULTS	TEST METHOD
Elongation at Break	>400 %	ASTM D 412
Tensile Strength	>1,5 N/ mm <sup>2</sup>	ASTM D 412
Water Vapor Permeability	>15 gr/m <sup>2</sup> /day	ISO 9932:91
Resistance to Water Pressure	No Leak (1m water column, 24h)	DIN EN 1928
Adhesion to concrete	>1,2 N/mm <sup>2</sup>	ASTM D 903
Hardness (Shore A Scale)	60	ASTM D 2240 (15")
Tack Free Time	6 hours	Conditions: 20°C, 50% RH
Light Pedestrian Traffic Time	18 hours	
Final Curing time	7 days	

## Application

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### Surface Preparation

Careful surface preparation is essential for optimum finish and durability.

The surface needs to be clean, dry and sound, free of any contamination, which may harmfully affect the adhesion of the membrane. Maximum moisture content should not exceed 8%. Substrate compressive strength should be at least 25MPa, cohesive bond strength at least 1.5MPa. 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 a grinding machine. Possible surface irregularities need to be smoothed. Any loose surface pieces and grinding dust need to be thoroughly removed.

### Repair of cracks and joints:

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

- Clean concrete cracks, hairline cracks and joints of dust, residue or other contamination. Fill all prepared cracks and joints with MARIFLEX® PU 30 sealant. Then apply a layer of MARITHAN®, 200mm wide centered over all cracks and while wet, cover with a correct cut stripe of the MARISEAL® FABRIC. Press it to soak. Then saturate the MARISEAL® FABRIC with enough MARITHAN® until it is fully covered. Allow to cure.

### Priming

Prime absorbent and brittle surfaces like concrete, cement screed, mortar, plaster, wood with MARITHAN® diluted with 15-20% clean water used as primer. For very brittle surfaces and/or demanding applications prime with MARITHAN® PRIMER EP. Allow the primer coat to cure.

### Waterproofing membrane

Stir well before using. Poor the MARITHAN® onto the prepared / primed surface and lay it out by roller or brush, until all surface is covered.

Stir well before using. Poor the MARITHAN® onto the prepared and primed surface and lay it out by roller, brush or squeegee, until all surface is covered. You can use airless spray allowing a considerable saving of manpower.

Reinforce always with the MARISEAL® FABRIC at problem areas, like wall-floor connections, pipes, chimneys, waterspouts (siphon), light domes, etc. In order to do that, apply on the still wet MARITHAN® a correct cut piece of MARISEAL® FABRIC, press it to soak, and saturate again with enough MARITHAN®. For detailed application instructions with the MARISEAL® FABRIC, contact our R+D department. We recommend reinforcement of the entire surface, with the MARISEAL® FABRIC. Use 5-10cm stripe overlapping.

After 18-36 hours apply another layer of the MARITHAN®. For better waterproofing results apply a third layer of the MARITHAN®.

WARNING: Do not apply the MARITHAN® in temperatures below 5°C or when dew, rain or frost is imminent in the next 48 hours. For best results, the temperature during application and cure should be between 5°C and 35°C. Low temperatures retard cure while high temperature speeds up curing. High humidity (fog or dew conditions) retard cure and affect the curing times and curing properties. Do not apply the MARITHAN® over 0.5 mm thickness (dry film) per layer

WARNING: The MARITHAN® is slippery when wet. In order to avoid slipperiness during wet days, sprinkle suitable aggregates onto the still wet coating to create an anti-slip surface. Please contact our R+D Dept. for more details.

### Packaging

MARITHAN® pails should be stored in dry and cool rooms for up to 18 months. Protect the material against frost and direct sunlight. Storage temperature: 5°-30°C. Products should remain in their original, unopened containers, bearing the manufacturers name, product designation, batch number and application precaution labels.

### Safety measures

Keep away from children. Do not use empty containers for food storage. See information supplied by the manufacturer. Please study the Safety Data sheet. PROFESSIONAL USE ONLY.

Our technical advice for use, whether verbal, written or in tests, is given in good faith and reflect the current level of knowledge and experience with our products. When using our products, a detailed object-related and qualified inspection is required in each individual case in order to determine whether the product and/or application technology in question meets the specific requirements and purposes. We may guarantee only that our products are compliant with their technical specification; correct application of our products therefore falls entirely within your scope of liability and Users are responsible, in any case, for complying with local legislation and for obtaining any required approvals or authorizations, when necessary, either for their purchase and/or for their use. Values in this technical data sheet are given as examples and may not be regarded as specifications. For product specifications contact our R+D department. The new edition of the technical data sheet supersedes the previous technical information and renders it invalid. It is therefore necessary that you always have to hand the current code of practice.

\* All values represent typical values and are not part of the product specification.

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