

# MARISEAL® 280W

Liquid-applied  
Hybrid polyurethane  
Waterproofing membrane  
Water-Based

TECHNICAL DATA SHEET  
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## Product Description

MARISEAL® 280W is a liquid-applied, highly permanent elastic, cold applied and cold curing, water based, one component, modified polyurethane membrane used for long-lasting waterproofing.

MARISEAL® 280W is based on the innovative PUD-Technology of MARIS POLYMERS SMSA

### Product Information

- One-component, water-based aromatic modified polyurethane

### Packaging

- 1/ 3,75 / 12,5 / 20 kg plastic pails

### Color

- White / Grey

### Shelf Life

- 18 months from date of production

### Storage Conditions

- Pails should be stored in dry and cool rooms. 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

### Advantages

- Simple application (roller or airless spray)
- Forms a hydrophobic, waterproofing, permanent elastic, seamless membrane without joints or leak possibilities, that protects old and new structures efficiently and on a long-term basis
- 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.
- Maintains its waterproofing properties from -10°C to +80°C

## ■ Uses

- Waterproofing of Roofs
- Waterproofing and Protection of Concrete Constructions
- Protection of Polyurethane Foam Insulation

## ■ Consumption

- 1,0– 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.

## ■ Certifications



**EN1504-2: Surface protection for concrete (1kg/m<sup>2</sup>)**



**Technical Data\***

PROPERTY	RESULTS	TEST METHOD
<b>Elongation at Break</b>	200 %	ASTM D 412
<b>Tensile Strength</b>	>1,5 N/ mm <sup>2</sup>	ASTM D 412
<b>Resistance to Water Pressure</b>	No Leak (1m water column, 24h)	DIN EN 1928
<b>Adhesion to concrete</b>	>1,2 N/mm <sup>2</sup>	EN 1542
<b>Permeability to CO<sub>2</sub> (measured in CE system)</b>	1.9 g/m <sup>2</sup> d	EN 1062-6
<b>Water vapour permeability (measured in CE system)</b>	7.5 g/m <sup>2</sup> d	EN ISO 7783
<b>Capillary absorption and permeability to water (measured in CE system)</b>	0.012 kg/m <sup>2</sup> .h <sup>0.5</sup>	EN 1062-3
<b>Hardness (Shore A Scale)</b>	60	ASTM D 2240 (15")
<b>Tack Free Time</b>	6 hours	Conditions: 20°C, 50% RH
<b>Light Pedestrian Traffic Time</b>	18 hours	Conditions: 20°C, 50% RH
<b>Final Curing time</b>	7 days	Conditions: 20°C, 50% RH



**PUD™ Technology: The Sustainable Revolution in Polyurethane**



MARISEAL® 280W is based on the innovative PUD Technology™ of MARIS POLYMERS, which enables, long-chain polyurethane macromolecules to be incorporated in a water medium, forming stable dispersions.

The PUD Technology™ based products, have the advantage offering the high-level properties of solvent based products, in an ecological, consumer and environmentally friendly, water-based, low VOC, non-ADR transport product.

The PUD Technology™ is the entry to the Sustainable Revolution in Polyurethane-based products



**EPD verified**



## Application

### 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. Make sure that the surface on which the waterproofing membrane will be applied has min 2% slope, as per European Construction Codes. If this is not the case, use cementitious mortar, resin mortar or other, to create the correct slope, before the application of the waterproofing coating.

### 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 MARISEAL® 280W, 200mm wide centered over all cracks and while wet, cover with a correct cut stripe of MARISEAL® FABRIC. Press it to soak. Then saturate MARISEAL® FABRIC with enough MARISEAL® 280W until it is fully covered. Allow to cure.

### Priming

Prime absorbent surfaces with MARISEAL® 710W and non-absorbent surfaces with MARISEAL® AQUA PRIMER. Allow the primer coat to cure.

### Waterproofing membrane

Stir well before using. Poor MARISEAL® 280W 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 MARISEAL® FABRIC at problem areas, like wall-floor connections, pipes, chimneys, waterspouts (siphon), light domes, etc. Apply on still wet MARISEAL® 280W a correct cut piece of MARISEAL® FABRIC, press it to soak, and saturate again with enough MARISEAL® 280W. For detailed application instructions with MARISEAL® FABRIC, contact our technical department. We recommend reinforcement of the entire surface, with MARISEAL® FABRIC. Use 5-10cm stripe overlapping.

After 18-36 hours apply another layer of MARISEAL® 280W. For better waterproofing results apply a third layer of the MARISEAL® 280W.

**WARNING:** Do not apply MARISEAL® 280W 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 temperature retards cure while high temperature speeds up curing. High humidity (fog or dew conditions) retards cure and affect the curing times and curing properties. Do not apply MARISEAL® 280W over 0.5 mm thickness (dry film) per layer.

**WARNING:** MARISEAL® 280W 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 technical Dept. for more information.

## 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.

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 technical 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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