

MARISEAL® 270W

TECHNICAL DATA SHEET

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Liquid-applied polyurethane waterproofing membrane

Product description

The MARISEAL® 270W is a liquid-applied, highly permanent elastic, cold applied and cold curing, one component modified polyurethane membrane used for long-lasting waterproofing.

The MARISEAL® 270W consists of flexible, water-dispersed polyurethane resins, with high permanent elongation.

When the MARISEAL® 270W is applied, it forms a hydrophobic, 100% waterproofing, seamless membrane without joints or leak possibilities, that protect old and new structures efficient and on a long term basis.

Advantages

- Simple application (ready to use).
- Low odor.
- When applied forms seamless membrane without joints.
- Resistant to water.
- Resistant to frost.
- The waterproofed surface can be walked on.
- Maintains its mechanical properties over a temperature span of -20°C to +70°C.
- Provides water vapor permeability.
- Full surface adherence without any additional anchoring.
- Even if the membrane gets damaged, it can be easily repaired locally within minutes.
- Low cost.

Uses

Waterproofing of Wet Areas (under-tile application) in:

- Bathrooms,
- Kitchens,
- Balconies,
- Auxiliary rooms, etc

Consumption

1,2 -1,8 kg/m² 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.

Colors

The MARISEAL® 270W is supplied in grey.

Technical data

PROPERTY	RESULTS	TEST METHOD
Elongation at Break	>400 %	ASTM D 412
Tensile Strength	>1,5 N/ mm ²	ASTM D 412
Water Vapor Permeability	>25 gr/m ² /day	ISO 9932:91
Thermal Resistance (80°C for 100 days)	Passed - No significant changes	EOTA TR-011
Resistance to Water Pressure	No Leak (1m water column, 24h)	DIN EN 1928
Adhesion to concrete	>1,5 N/mm ² (concrete surface failure)	ASTM D 903
Hardness (Shore A Scale)	60	ASTM D 2240 (15")
Service Temperature	-30°C to +90°C	Inhouse Lab
Tack Free Time	6 hours	
Light Pedestrian Traffic Time	24 hours	Conditions: 20°C, 50% RH
Final Curing time	7 days	

CONSTRUCTION



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%. 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/joints with MARIFLEX® PU 30 sealant. Widen joints if necessary. Then apply a layer of MARISEAL® 270W, 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 MARISEAL® 270W, until it is fully covered. Allow 18 hours to cure.

Priming

Prime absorbent and brittle surfaces like concrete, cement screed, mortar, plaster, wood with MARISEAL® 270W diluted with 15% of clean water. Allow the primer coat to cure for 6-24 hours (depending on temperature).

Waterproofing membrane

Stir well before using. Pour the MARISEAL® 270W onto the primed surface and lay it out by roller or brush, until all surface is covered. After 6-24 hours (depending on temperature) apply another layer of the MARISEAL® 270W. For demanding applications, apply a third layer of the MARISEAL® 270W.

If the MARISEAL® 270W is to be covered with ceramic tiles, fully saturate with oven-dry silica sand (corn-size 0,4-0,8mm) the last layer while still wet. This saturation will create an adhesion bridge to the tile adhesive that will follow.

Reinforce always with the MARISEAL® FABRIC at problem areas, like wall-floor connections, pipes, waterspouts (siphon), etc. In order to do that, apply on the still wet MARISEAL® 270W a correct cut piece of MARISEAL® FABRIC, press it to soak, and saturate again with enough MARISEAL® 270W. For detailed application instructions with the MARISEAL® FABRIC, contact our R+D department.

ATTENTION: Do not apply the MARISEAL® 270W over 0.5 mm thickness (dry film) per layer.

WARNING: Do not apply the MARISEAL® 270W in negative (degC) temperatures or when 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 speed up curing. High humidity may affect the final finish. We recommend reinforcement of the entire surface, with the MARISEAL® FABRIC. Use 5-10cm stripe overlapping.

WARNING: The MARISEAL® 270W is slippery when wet. In order to avoid slipperiness, sprinkle suitable aggregates onto the still wet coating to create an anti-slip surface. Please contact our R+D Dept. for more details.

Packaging

MARISEAL® 270W is packed in 25kg and 4kg pails. Pails should be stored in dry and cool rooms for up to 18 months. Protect the material against moisture, 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 are liable only for our products being free from faults; correct application of our products therefore falls entirely within your scope of liability and responsibility. We will, of course, provide products of consistent quality within the scope of our General Conditions of Sale and Delivery. Users are responsible for complying with local legislation and for obtaining any required approvals or authorizations. 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.

