Maris Polymers®
POLYURETHANE SYSTEMS

MARISEAL® 270W

TECHNICAL DATA SHEET
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Liquid-applied polyurethane Wet-Areas waterproofing membrane

CONSTRUCTION

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.
- The waterproofed surface can be walked on.
- Maintains its mechanical properties over a temperature span of -20ºC to +70ºC.
- 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/m^2 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	>300 %	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 (80ºC 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	-30ºC to +90ºC	Inhouse Lab
Tack Free Time	6 hours	Conditions: 20ºC, 50% RH
Light Pedestrian Traffic Time	24 hours	
Final Curing time	7 days	

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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 smoothened. 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 connection 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 15-20% 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.
Reinforce always with the MARISEAL® FABRIC at problem areas, like wall-floor connections, pipes, waterspouts (siphon), etc.
We recommend reinforcing with the MARISEAL® FABRIC at the entire surface to be waterproofed. Use 5-10cm stripe overlapping.
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. We recommend reinforcement of the entire surface, with the MARISEAL®Fabric. Use 5-cm stripe overlapping.

After 6-24 hours (depending on temperature) apply another layer of the MARISEAL® 270W. For under-tile applications, apply a third layer of the MARISEAL®270. 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 (third) layer while still wet. This saturation will create an adhesion bridge to the tile adhesive that will follow.

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

WARNING: Do not apply the MARISEAL 270W in temperatures below 5^{o}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^{o}C and 35^{o}C. Low temperatures retard cure while high temperature speed up curing. High humidity may affect the final finish.

WARNING: The MARISEAL® 270W and/or the MARISEAL SYSTEM 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^{0}-30^{0}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 used empty containers for food storage. See information supplied by the manufacturer. Please study the Safety Data sheet. PROFESSIONAL USE ONLY.