

MARISEAL® DETAIL

Liquid-applied polyurethane waterproofing membrane For complex roof details. Fiber-reinforced

Product description

MARISEAL® DETAIL is a liquid-applied, **thixotropic**, permanent elastic, **fiber-reinforced**, cold applied and cold curing, one component polyurethane membrane used for long-lasting waterproofing.

Cures by reaction with ground and air moisture.

Uses

The MARISEAL® DETAIL is mainly used to create waterproof seals on difficult and complex roofing details such as:

- Wall-floor connections,
- Flashings and 90° angles,
- Light domes,
- Rooflights,
- Chimneys,
- Pipes,
- Gutters, etc.

Advantages

- Simple application (brush or roller).
- It forms seamless membrane without joints or leak possibilities.
- Resistant to water and rain.
- Maintains its mechanical properties over a temperature span of -30°C to +80°C.
- Resistant to frost.
- 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

Consumption

2 – 3 kg/m² depending on application.

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 MARISEAL® FABRIC reinforcement, consumption may alter.

Surfaces

The MARISEAL® DETAIL is mainly used to create waterproof seals between different construction materials as:

Bitumen felts / PVC membranes / Concrete / Mortar / Cement screed / Various Metals / Wood, etc.

Colors

The MARISEAL® DETAIL is supplied in Grey and Black.

Technical data *

PROPERTY	RESULTS	TEST METHOD
Composition	Polyurethane high-solids pre-polymer	
Elongation at Break	> 250 %	ASTM D 412
Tensile Strength	> 2 N/mm ²	ASTM D 412
Water Vapor Permeability	> 20 gr/m ² per 24 hours	ISO 9932:91
Resistance to Water Pressure	No Leak (1m water column, 24h)	DIN EN 1928
Adhesion to concrete	> 2,0 N/mm ² (concrete failure)	ASTM D 903
Hardness (Shore A Scale)	65-70	ASTM D 2240
Application Temperature	5°C to 35°C	Conditions: 20°C, 50% RH
Rain Stability Time	3-4 hours	
Light Pedestrian Traffic	12-18 hours	
Final Curing time	7 days	
Chemical Properties	Good resistance against acidic and alcaic solutions (5%), detergents, seawater and oils.	

Certifications

The MARISEAL® DETAIL was tested by the German state testing institute for construction materials MPA-Braunschweig according to the European Union Directive for liquid-applied roof waterproofing kits ETAG 005 and was found conforming.



The MARISEAL® DETAIL was certified by the German state Institute for construction techniques DIBt-Berlin with the European Technical Assessment (ETA) and with the CE-mark and certification according to the EOTA (European Organization of Technical Approval). The European Technical Assessment (ETA) is valid for two levels of use (W2 and W3) depending on the applied thickness.

Application

Surface Preparation / Priming

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 coating. New concrete structures need to dry for at least 28 days. Old 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. Do not wash surface with water!

Priming

Please refer to MARISEAL® DETAIL surface preparation / priming table.

MARISEAL® DETAIL surface preparation / priming table*

Surface preparation	Preparation	Primer not necessary	Priming recommended
Polymeric Bitumenfelt (APP/SBS)	*5	X	
Chippings finished Bitumenfelt (APP/SBS)	*4	X	
Chippings finishes Oxidized Bitumenfelt	*4	X	
Plain Oxidized Bitumenfelt	*5	X	
Painted surfaces	*3	x	
Steel	*1, *3	X	
Aluminum	*1, *3	X	
Copper	*1	X	
Zinc	*1	X	
Concrete	*2, *6		X
Lightweight Concrete	*2, *6		X
Plaster	*2, *6		X
Screed	*2, *6		X
Brick	*2, *6		X
Stones	*2, *6		X
EPDM Membranes	*1, *7	X	
PVC Membranes	*1, *7	X	
PVC Rigid	*1	X	
Wood	*2		X
Polyester	*1, *7	X	
Acrylic Glass	*1	X	
Glass	*1	X	

*1: Before application, grind surface with sandpaper or grinding wheel. Then thoroughly clean/degrease with MARISEAL® SOLVENT.

*2: Residual moisture content of mineral substrates max.5%. New cementitious surfaces must be at least 28 days old. Remove loose pieces mechanically.

*3: Always remove old paints.

*4: MARISEAL® suitable primer binds the slate chippings on the Bitumenfelt. If in doubt it is recommended to use the MARISEAL®

*5: Liquify surface by fire-torch and immediately saturate with enough dry silica sand (0.4-0.8mm).

*6: Before coating, brush off the surface with a wire brush, to roughen it.

*7: Always perform adhesion test before application. For not listed substrates contact MARIS POLYMERS application department.

**All information regarding treatment of surfaces is to be considered indicative, as corresponds to the current level of laboratory and practical experience. Given the multitude of different materials in the market, deviations are possible. Therefore, absolute accuracy of given information cannot be guaranteed. Due to the different object requests and the varying conditions, an adhesion test is necessary to guarantee suitability for the specific purpose. Preliminary coating adhesion tests are therefore recommended in all cases. Should doubts arise about the suitability of the coating for your surface, we will gladly test your surface samples.

Detail Waterproofing membrane

Stir MARISEAL® DETAIL slowly and well with wooden staff before using. Do not use a mechanical drill.

Apply the MARISEAL® DETAIL onto the prepared and/or primed surface by a 10cm wide brush, until all surface is covered.

After 18-36hours apply a second layer. Reinforce always with the MARISEAL® Fabric.

In order to do that, apply on the still wet MARISEAL® DETAIL a correct cut piece of MARISEAL® Fabric, press it to soak, and saturate again with enough MARISEAL® DETAIL. For detailed application instructions with the MARISEAL® Fabric, contact our R+D department.

ATTENTION: Do not apply the MARISEAL® DETAIL when the temperature is below +5°C during the application and 4 hours afterwards, on surfaces with Temperature below +5°C, on frozen surfaces, during rain or mist, on wet MARISEAL® DETAIL Primer and on surfaces with ascending humidity. Low temperatures retard cure while high temperature speed up curing.

Finishing

If a color stable and chalking-free surface is desired, apply one or two layers of the MARISEAL® 400 Top-Coat over the MARISEAL® DETAIL. The application of the MARISEAL® 400 Top-Coat, is especially required, if a dark final color, is desired. (e.g. red, grey, green) Alternatively, suitable aggregate can be broadcasted over the last (second) layer of the MARISEAL DETAIL while still wet, until full saturation, to protect against UV radiation and enhance optically the result.

For the several finishing application procedures, please consult their technical instructions or contact our R+D Department.

WARNING: The MARISEAL® DETAIL and/or the MARISEAL® SYSTEM 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

MARISEAL® DETAIL is supplied in 6 kg pails. Pails should be stored in dry and cool rooms for up to 9 months. Protect the material against moisture 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

MARISEAL® DETAIL contains isocyanates. 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. In sample preparation the MARISEAL KATALYSATOR was used as an acceleration additive. The applied coating might yellow and/or fade upon UV exposure.