MARISEAL® DETAIL

Liquid-applied, fiber-reinforced, polyurethane waterproofing membrane for complex roof details

TECHNICAL DATA SHEET
Date: 03.02.2025

Product Description

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

Product Information

- One-component, air & ground moisture-cured cold applied and cold curing thixotropic aromatic fiber-reinforced polyurethane

Packaging

- 1/6 kg metal pails

Color

- Grey, Black, White

Shelf Life

- 9 months from date of production

Storage Conditions

- Pails must be stored in dry and cool rooms. Protect the material against moisture and direct sunlight. Storage temperature: 5°-35°C. Products must remain in their original, unopened containers, bearing the manufacturers name, product designation, batch number and application precaution labels.

Advantages

- Simple application (brush or roller)
- Seamless membrane without joints or leak possibilities
- Resistant to stagnating water and rain
- Maintains its mechanical properties over a temperature span of -30°C to +80°C
- Resistant to frost
- Provides water vapor permeability

Uses

Mainly used to create waterproof seals on difficult and complex roofing details such as:

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

Consumption

- 2,0 – 3,0 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.

Certifications

Technical Data *

PROPERTY	RESULTS	TEST METHOD
Elongation at Break	250%	ASTM D 412
Tensile Strength	> 2 N/mm²	ASTM D 412
Water Vapor Permeability	10 gr/(m²·d)	ISO 9932:91
Resistance to Water Pressure	No Leak (1 m water column, 24 hrs)	DIN EN 1928
Carbon Dioxide Permeabily (2,5 kg/m²)	2,5 gr/(m²·d)	EN 1062-6
Water Permeabily (2,5 kg/m²)	0,025 kg/(m²·h$^{0.5}$)	EN 1062-3
Adhesion to concrete	> 2,5 N/mm²	EN 1542
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	Conditions: 20°C, 50% RH
Light Pedestrian Traffic	12-18 hours	Conditions: 20°C, 50% RH
Final Curing time	7 days	Conditions: 20°C, 50% RH
Chemical Properties	Good resistance against acidic and alkalic solutions (5%), detergents, seawater and oils.	

EAD 030350-00-0402: European Technical Approval: ETA09/0241

Working life expected:	**W3 (4,1 kg/m²)**	**25 Years**
Climate Zone:	M and S	All
Imposed loads:	**P1 to P4**	**Very High (maximum load)**
Roof slopes:	S1 to S4	<5º to >30º
Lowest surface temperature:	TL4	-30ºC
Highest surface temperature:	TH4	+90ºC
Reaction to fire:	Class E	EN 13501-1
Resistance to wind loads	≥ 50 kPa	EU Norm

Working life expected:	**W2 (2,4 kg/m²)**	**10 Years**
Climate Zone:	M and S	All
Imposed loads:	**P1 to P3**	**High**
Roof slopes:	S1 to S4	<5º to >30º
Lowest surface temperature:	TL3	-20ºC
Highest surface temperature:	TH4	+90ºC
Reaction to fire:	Class E	EN 13501-1
Resistance to wind loads	≥ 50 kPa	EU Norm

EPD verified

EPD®

ISO 14001:2015
ISO 9001:2015

EN1504-2: Surface protection product for concrete (2,5 kg/m^2)

Application

Substrate requirements

The substrate must be sound, solid, clean, dry, not subjected to rising damp, without efflorescence and free from any kind of foreign materials (old existing coatings, dirt, oils, organic substances, dust, concrete curing agents, etc.) that may adversely affect the adhesion of the waterproofing system.
All loose substrate particles must be removed.

Substrate strength

The substrate must have sufficient mechanical strength to withstand the imposed loads, according to its intended use. The surface tensile strength of the substrate must be ≥ 1,5 MPa.

Moisture and temperature limits

The maximum moisture content of the substrate must not exceed 5%.
The temperature of the substrate, on which the waterproofing system is to be applied, must be at least 3°C above the dew point. The temperature during application and cure must be between 5°C and 35°C.
Substrates made with newly casted concrete or cementitious screeds must be fully cured and the moisture content must be within the limits (≤ 5%).
In case the substrate must be washed with water or be pressure washed, it must be let dry until the moisture content is within the limits (≤ 5%).

Priming

Prime non-absorbent surfaces (like metal) with MARISEAL® AQUA PRIMER or with MARISEAL® 750.
Prime TPO or EPDM membranes with MARISEAL® TPO PRIMER.
For PVC membranes, wipe the surface with MARISOLV® 9010 to activate it.
On bituminous membranes in good condition and without any loose slates, priming is optional. Otherwise, prime with MARISEAL® AQUA PRIMER or MARISEAL® 730.
On concrete or cementitious screed that meet the substrate requirements, priming is optional. Otherwise, prime with MARISEAL® AQUA PRIMER or MARISEAL® 710.

Waterproofing membrane

Stir MARISEAL® DETAIL slowly and well with wooden stick before using. Do not use a power stirrer. Apply MARISEAL® DETAIL onto the prepared and/or primed surface with a 10 cm wide brush, until all the surface is covered. After 18-36 hours apply a second layer. Reinforce if needed with MARISEAL® FABRIC. In order to do that, apply on the still wet MARISEAL® DETAIL a suitable cut piece of MARISEAL® FABRIC, press it to soak, and saturate again with enough MARISEAL® DETAIL. For detailed application instructions with MARISEAL® FABRIC, contact our technical department.
ATTENTION: Do not apply 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 primer and on surfaces with ascending humidity. Low temperatures retard cure while high temperature speeds up curing.

Finishing

If a color stable and chalking-free surface is desired, apply one or two layers of MARISEAL® 400 top-coat over MARISEAL® DETAIL. The application of MARISEAL® 400 top-coat, is especially required, if a dark final color, is desired.
Alternatively, suitable aggregate can be broadcasted over the last (second) layer of 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 the technical instructions or contact our technical department.
WARNING: MARISEAL® DETAIL and/or 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 technical department for more information

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 or written, 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.
The applied coating might yellow and/or fade upon UV exposure.
* All values represent typical values and are not part of the product specification.

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