

# MARISEAL® 400W

Aliphatic Polyurethane  
Top-Coat, UV-stable  
Water-based  
Light Pedestrian Traffic Areas

TECHNICAL DATA SHEET  
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## Product Description

MARISEAL® 400W is a water-based, pigmented, wear resistant, semi-rigid, UV & colour stable, polyurethane coating used as a top-coat for protection over water-based waterproofing membranes. MARISEAL® 400W consists of flexible, water-based polyurethane resins (dispersion). MARISEAL® 400W is based on the innovative PUD-Technology™ of MARIS POLYMERS SMSA

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### Product Information

- One-component, water-based aliphatic polyurethane

### Packaging

- 1/4/12/20 kg plastic pails

### Color

- White / Light grey / Red /
- other colours available upon request

### Shelf Life

- 18 months from date of production

### Storage Conditions

- Pails should be stored in dry and cool rooms for up to 18 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.  
PROTECT FROM FROST

### Advantages

- Simple application (roller or airless spray)
- Forms a hydrophobic, 100% waterproofing, seamless, polyurethane coating, that protects the waterproofing basecoat efficient and on a long-term basis
- Resistant to abrasion
- UV & Colour stable
- Gives an easy-to-clean surface
- No chalking effect
- Maintains its mechanical properties over a temperature span of -30°C to +80°C
- Low VOC content <100 gr/l
- Resistant to frost

## ■ Uses

Used over MARISEAL® waterproofing membranes for:

- Roofs
- Protection of Polyurethane Foam Insulation

Used over MARISEAL® 250W on surfaces, with light pedestrian traffic (e.g., Roofs, Terraces, Residential Walkways) that require a glossy, colour-stable and non-chalking finish.

## ■ Consumption

- 0,200 – 0,400 kg/m<sup>2</sup> in one or two 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.

## ■ Certifications



**EN1504-2:** Surface protection for concrete. Certification of MARISEAL Water-based system: 0.2kg MARISEAL 710W, 1.4kg MARISEAL 250W, 0.25kg MARISEAL 400W



**EN13813:** Screed material and floor screed: 0.2g/m<sup>2</sup>



### Technical Data\*

PROPERTY	RESULTS	TEST METHOD
<b>Elongation at Break at 20°C</b>	250%	ASTM D 412
<b>Tensile Strength at 20°C</b>	>10 N/mm <sup>2</sup>	ASTM D 412
<b>UV Stability, 2000h</b>	excellent	ASTM G154
<b>Permeability to CO<sup>2</sup> (measured in CE system)</b>	4.55g/m <sup>2</sup> d	EN 1062-6
<b>Water vapour permeability (measured in CE system)</b>	18.5g/m <sup>2</sup> d	EN ISO 7783
<b>Capillary absorption and permeability to water (measured in CE system)</b>	0.025 kg/m <sup>2</sup> .h <sup>0.5</sup>	EN 1062-3
<b>Adhesion strength by pull-off test (measured in CE system)</b>	1.5 N/mm <sup>2</sup>	EN 1542
<b>Impact Resistance</b>	19.6Nm	EN ISO 6272-1
<b>Wear Resistance</b>	10µm	EN 13892-4
<b>Solar Reflectance Index (SRI) (white colour)</b>	113	ASTM E1980-01
<b>Resistance to Water Pressure</b>	No Leak (1m water column, 24h)	DIN EN 1928
<b>Hardness (Shore A Scale)</b>	>65	ASTM D 2240 (15")
<b>Rain Stability Time</b>	4 hours	Conditions: 20°C, 50% RH
<b>Light Pedestrian Traffic Time</b>	18-24 hours	Conditions: 20°C, 50% RH
<b>Final Curing time (ponding test )</b>	10 days	Conditions: 20°C, 50% RH



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



MARISEAL® 400W is based on the innovative PUD Technology™ of MARIS POLYMERS SMSA, 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



ISO 14001:2015  
ISO 9001:2015

## ■ Application

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### **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.

Make sure that the surface on which the waterproofing membrane and top-coat 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.

### **Top-Coat**

Stir well before using. Apply MARISEAL® 400W over MARISEAL® waterproofing membrane by roller, brush or airless spray in one or two layers, depending on the future wear conditions expected.

Allow 3-6 hours (not more than 8 hours) to cure between two layers.

**ATTENTION:** Do not apply MARISEAL 400W 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 temperatures retard cure while high temperature speeds up curing. High humidity (fog or dew conditions) retard cure and affect the curing times and curing properties.

**WARNING:** MARISEAL® 400W 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 details.

## ■ Safety measures

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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 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 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 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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