

## MARISEAL® 400

TECHNICAL DATA SHEET  
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### Aliphatic Polyurethane Top-Coat, UV-stable Light Pedestrian Traffic Areas

#### Product Description

MARISEAL® 400 is a pigmented, colour & UV stable, highly permanent elastic, polyurethane coating, used as a top-coat for protection over exposed, polyurethane waterproofing membranes.

Cures by reaction with ground and air moisture over a unique moisture triggered chemical reaction

Protects very efficiently, especially if a dark final colour is desired.

#### Advantages

- Simple application (roller or airless spray)
- Increases the abrasion and wear resistance of the waterproofing membrane underneath
- Provides high solar reflectance (white colour), contributing to thermal insulation.
- UV & Colour stable
- Gives a glossy and easy-to-clean surface
- No chalking effect
- Resistant to stagnating water, heat and frost
- Maintains its mechanical properties over a temperature span of -40°C to +90°C
- The waterproofed surface can be walked on (light pedestrian traffic)

#### PRODUCT INFORMATION

<b>Chemical Base</b>	One-component, solvent based, ground & air moisture-cured, cold applied and cold curing aliphatic polyurethane
<b>Packaging</b>	1/5/10/20 kg metal pails
<b>Colour</b>	White / Light Grey / Red Other colours available upon request
<b>Shelf Life</b>	9 months from date of production

#### Main Uses

- Waterproofing of Roofs
- Waterproofing of Balconies, Terraces and Verandas
- Protection of Polyurethane Foam Insulation

Used over  
MARISEAL® 250, 250 FLASH, 260, etc. on surfaces with light pedestrian traffic (e.g. Roofs, Terraces, Balconies, etc.) that require a glossy, colour-stable and non-chalking finish.

#### Consumption

0,120-0,250 kg/m<sup>2</sup> in one or two layers  
This coverage is based on practical application by roller onto a smooth surface in optimum conditions. Factors like surface porosity, temperature, humidity, application method and finish required, can alter consumption.

CONSTRUCTION



### Technical Data \*

PROPERTY	RESULTS	TEST METHOD
Elongation at break	180%	ASTM D412
Tensile strength	>20 N/mm <sup>2</sup>	ASTM D412
Resistance to Water Pressure	No Leak	DIN EN 1928
Gloss retention after 2000h of accelerated aging (DIN EN ISO 4892-3, 400 MJ/m <sup>2</sup> )	Good	DIN 67530
Surface chalking after 2000h of accelerated aging (DIN EN ISO 4892-3, 400 MJ/m <sup>2</sup> )	<b>No chalking observed. Chalking grade 0</b>	DIN EN ISO 4628-6
Adhesion to MARISEAL® 250	>2 N/mm <sup>2</sup>	EN 1542
Adhesion to cement	4.5N/mm <sup>2</sup>	EN 13892-8
Hardness (Shore A Scale)	85-90	ASTM D 2240 (15")
Solar Reflectance Index (SRI) (white colour)	107	ASTM E903-96
Infrared emittance	0.89	ASTM E903-96
UV accelerated ageing, in the presence of moisture	Passed - No significant changes	EOTA TR-010
Hydrolysis (5% KOH, 7days cycle)	No significant elastomeric change	Inhouse Lab
Service Temperature	-40°C to +90°C	Inhouse Lab
Tack Free Time	1-3 hours	Conditions: 20°C, 50% RH
Light Pedestrian Traffic Time	12 hours	
Final Curing time	7 days	
Chemical Properties	Good resistance against acidic and alkali solutions (5%), detergents, seawater and oils.	

### Certifications

EN13813: Screed material and floor screed: 0.3g/m<sup>2</sup>



### 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 5%. Substrate compressive strength should be at least 25MPa, cohesive bond strength at least 1.5MPa. 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.

#### Waterproofing Membrane

See relevant MARIS POLYMERS product Technical Data Sheet.

#### Top-Coat

Stir MARISEAL® 400 well, before using.

Apply MARISEAL® 400 by roller, brush or airless spray in one or two layers.

Allow 3-6 hours (not more than 36 hours) to cure, between the two layers.

For best results, the temperature during application and cure should be between 5°C and 35°C. Low temperature retards cure while high temperature speeds up curing. High humidity may affect the final finish.

**WARNING:** MARISEAL® 400 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 R&D Dept. for more information.

**WARNING:** In case of surface with stagnating water, MARISEAL® system should be cleaned on regular basis, to avoid biological and microbial attack.

#### Storage Conditions

MARISEAL® 400 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.



# Maris Polymers®

POLYURETHANE SYSTEMS

## Safety measures

MARISEAL® 400 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 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.

CONSTRUCTION

