MARISEAL SYSTEM
LIQUID-APPLIED POLYURETHANE WATERPROOFING SYSTEM
A flat roof is constantly exposed to humidity, ultraviolet degradation, weathering, acid rain attack, mechanical wear and ongoing movement stresses, due to temperature changes. As a result, most flat roofs are leaking and require renovation.

The professional, long lasting, waterproofing solution is the MARISEAL SYSTEM™

The MARISEAL SYSTEM™ is a group of coatings based on Polyurethane resins, which, used in combination, create a seamless membrane on the flat roof, that protects the building structure reliably and on a long term basis, even under the most difficult conditions.

Professional waterproofing applicators in over 45 countries, use the MARISEAL SYSTEM™ for demanding waterproofing. The reasons are:

- Simple application.
- When applied, forms a seamless membrane, without joints or leak possibilities.
- Resistance to water.
- Crack-bridging up to 2mm, even at -10°C.
- Maintainance of its mechanical properties, over a temperature span of -30°C to +90°C.
- Provides water vapor permeability.
- Provides full surface adhesion.
- Provides sun reflectivity, contributing to thermoinsulation.
- Provides anti-root properties.
- The waterproofed surface can be used for medium to heavy pedestrian traffic, depending on the MARISEAL SYSTEM™ top-coat.
- Resistant to detergents, oils and common chemicals.
- Easy local repair, if the membrane is mechanically damaged.
- Low cost.

The MARISEAL SYSTEM™ can be used on:
- Roofs, Balconies and Terraces
- Wet areas
- Water tanks
- Flowerbeds
- Public Walkways
- Foundations, etc.

Maris Polymers
POLYURETHANE SYSTEMS

The original!
The MARISEAL SYSTEM consists of

**MARISEAL PRIMERS**

**MARISEAL 710**
The MARISEAL 710 is a fast curing, one-component polyurethane primer, used to prepare absorbent surfaces like concrete, cement screed, mortar, wood, etc.

**MARISEAL AQUA PRIMER®**
The MARISEAL AQUA PRIMER is a two-component epoxy waterbased primer, used to prepare the majority of construction surfaces including absorbent and non-absorbent surfaces like bitumen-felts, ceramic tiles, mortar, wood, etc.

**MARISEAL WATERPROOFING COATINGS**

**MARISEAL 250**
The MARISEAL 250 is a premium, one-component, permanent elastic, liquid applied polyurethane coating, that cures to a seamless, highly elastic waterproofing membrane. Used on most waterproofing applications, as roofs, balconies, terraces, etc.

**MARISEAL DETAIL®**
The MARISEAL DETAIL is a one-component, permanent elastic, liquid applied polyurethane coating, reinforced by fibers. It is used to waterproof details on the roof like exhaust pipes, light domes, etc.

**MARISEAL 270**
The MARISEAL 270 is a one-component, permanent elastic, liquid applied polyurethane coating, that cures to a seamless, elastic waterproofing membrane. Used on wet areas, foundations, balconies (below tiles), etc.

**MARISEAL 300**
The MARISEAL 300 is a two-component, solvent free, liquid-applied, permanent elastic polyurethane coating that cures to a seamless, elastic waterproofing membrane. Used in potable water tanks, water channels, sewage tanks, etc.

**MARISEAL TOP COATS**

**MARISEAL 400**
The MARISEAL 400 is a pigmented, colorfast, UV-stable, permanent elastic, one-component aliphatic polyurethane coating, used as a top-coat over exposed polyurethane waterproofing coatings. Used on roofs and terraces where a medium pedestrian traffic is expected.

**MARISEAL 420**
The MARISEAL 420 is a pigmented, colorfast, UV-stable, permanent hard-elastic, one-component aliphatic polyurethane coating, used as a top-coat over exposed polyurethane waterproofing coatings. Used on public walkways and areas where a heavy pedestrian traffic is expected.

**MARITRANS®**
The MARITRANS is a transparent, UV-stable, permanent hard-elastic, one-component aliphatic polyurethane coating, used as a sealer over decorative polyurethane waterproofing coatings. Used on balconies and terraces where a medium pedestrian traffic is expected.

The MARITRANS can be also used as a transparent coating to waterproof ceramic tiles surfaces.

**MARISEAL SYSTEMAUXILIARY PRODUCTS**

**MARISEAL FABRIC**
Polyester, non-woven, reinforcing geotextile. Used for reinforcing roofing details or the entire surface.

**MARISEAL KATALYSATOR®**
Accelerator for use with the MARISEAL 250 and MARISEAL 270.

**MARIFLEX PU30**
Low modulus Polyurethane sealant used to seal joints and cracks.
No Problem with Details

All the waterproofing coatings of the MARISEAL SYSTEM cure to form permanently elastic, seamless membranes providing waterproofing on a long-term basis, even to the most difficult and problematic details.

While other waterproofing membranes or systems fail at these difficult detail areas, the MARISEAL SYSTEM has proven itself to perform, even in the most extreme climatic zones on the planet.

The MARISEAL SYSTEM creates a seamless membrane with full surface adhesion to the surface, so no additional mechanical fixings or additional flashings are required.
Waterproofing of Roofs, Balconies and Terraces

**MARISEAL 250**

**MARISEAL 250** is the backbone of the MARISEAL SYSTEM functioning as the main elastic and waterproofing membrane.

**MARISEAL 250** is a one-component, liquid-applied, cold applied and cold curing, polyurethane coating that cures to a seamless, highly permanent elastic waterproofing membrane.

The **MARISEAL 250** is used on most waterproofing applications as:

- ROOFS
- BALCONIES
- TERRACES
- WET AREAS
- PUBLIC WALKWAYS
- FLOWERBEDS
- POLYURETHANE FOAM PROTECTION

The **MARISEAL 250** has been tested by the German State Testing Institute for Construction Materials MPA-Braunschweig, according the European Union Directive for liquid-applied roof waterproofing ETAG 005, and was found conforming.

The **MARISEAL 250** was tested by the French Testing Institute for Construction Materials BUREAU-VERITAS according the French Norms and was found conforming.

The **MARISEAL 250** was certified by the German State Institute for Construction Techniques DIBt-Berlin, with the European Technical Approval (ETA) and with the CE mark and certification.

**LEVELED USE CATEGORIES ACCORDING ETAG 005:**

<table>
<thead>
<tr>
<th>Working Life:</th>
<th>V2</th>
<th>10 years minimum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Climate zone:</td>
<td>P1 and S</td>
<td>North and South Europe</td>
</tr>
<tr>
<td>Imposed loads:</td>
<td>P1 to P3</td>
<td>Up to high pedestrian traffic</td>
</tr>
<tr>
<td>Dachneigung:</td>
<td>S1 bis S4</td>
<td>Roof slope from &lt;5° to &gt;30°</td>
</tr>
<tr>
<td>Lowest surface temperature:</td>
<td>TL3</td>
<td>-20°C</td>
</tr>
<tr>
<td>Highest surface temperature:</td>
<td>TN9</td>
<td>90°C</td>
</tr>
<tr>
<td>Reaction to fire:</td>
<td>Class E</td>
<td>EN13501, DIN4102-1 und 7</td>
</tr>
<tr>
<td>Resistant to wind loads:</td>
<td>&gt;50 kPa</td>
<td>Resistant to all wind loads</td>
</tr>
</tbody>
</table>

The **MARISEAL 250** was additionally tested and approved according:
- DIN 1928, which classifies it as a waterproofing coating.
- DIN 4102 part I, which classifies it as a B2 fire rating construction material.
- DIN 4102 part 7, which classifies it as a surface coating resistant to flying sparks and radiating heat.
- The **MARISEAL 250** has also been tested and certified in many countries around the world according to local and national norms.

The **MARISEAL 250** was tested according EN S3420 which classifies it as a root-resistant coating, suitable to be used in green roofs, flowerbeds and planters.

The **MARISEAL 250** has also been tested for Root Resistance for Waterproofing of Green Roofs.
regulations and norms.
Waterproofing of Wet Areas & Foundations

**MARISEAL 270**

The MARISEAL 270 is the elastic and waterproofing coating of the system for concealed areas and below ground applications.

The MARISEAL 270 is a one-component, liquid-applied, cold applied and cold curing, polyurethane coating that cures to a seamless, permanent elastic waterproofing membrane.

The MARISEAL 270 is used on waterproofing applications as:
- WET AREAS (under tile)
- FOUNDATIONS
- RETAINING WALLS, etc

The MARISEAL 270 was specially developed to meet the economical demands of today’s construction industry, by providing the highest product quality matched with a very interesting pricing.

Waterproofing of potable Water Tanks

**MARISEAL 300**

The MARISEAL 300 is the elastic and waterproofing coating of the system for potable water tanks, water channels and sewage tanks.

The MARISEAL 300 is a two-component, odourless, solvent-free, liquid-applied, polyurethane coating that cures to a seamless, permanent elastic waterproofing membrane.

The MARISEAL 300 is used on waterproofing applications as:
- WATER TANKS
- WATER CHANNELS
- SEWAGE TANKS, etc

The MARISEAL 300 is certified for direct and permanent contact with potable (drinking) water.
Top Coat for Roofs, Balconies and Terraces

**MARISEAL 400°**

For perfect waterproofing as well as optimum optical result, the MARISEAL 400° top-coat is applied over the main MARISEAL waterproofing membrane, to give a decorative and color-stable finish. The MARISEAL 400° is an elastic, pigmented, color stable, aliphatic polyurethane top-coat that is applied over the main waterproofing membrane, providing a glossy, decorative and easy-to-clean surface. It has been tested and certified by the German State Institute Materialprüfungsanstalt MPA-Braunschweig, as a non-yellowing, color stable and non-chalking coating.

Top Coat for Public Pedestrian Areas

**MARISEAL 420°**

The MARISEAL SYSTEM, can be applied on surfaces that require a wear resistant and abrasion resistant finish, to withstand heavy pedestrian traffic conditions, as public pedestrian walkways, stadiums, etc. This is achieved by using the MARISEAL 420° over the main MARISEAL waterproofing membrane. The MARISEAL 420° is a hard-elastic, pigmented color stable, aliphatic polyurethane top-coat that is applied over the main waterproofing membrane, providing a wear resistant finish that can withstand heavy pedestrian and light vehicle traffic conditions. The use of the MARISEAL 420° results in an abrasion resistant, glossy and easy-to-clean surface which is color stable, UV-stable and free of chalking.
After curing of the waterproofing membrane, the appropriate MARISEAL top coat is being applied on the entire surface (step 11). Depending on the substrate, the MARISEAL top coat application is being applied on the entire surface (step 9, 10). Enough MARISEAL coating is then applied until full saturation of the fabric (step 6). The MARISEAL FABRIC is rolled over the still wet waterproofing coating and pressed in to soak (step 4, 5).

Surface Preparation
Cracks are filled with the MARIFLEX PU30 joint sealant (step 1). The sealed crack is then covered with the MARISEAL waterproofing coating, and then reinforced with a piece of MARISEAL FABRIC (step 2). The rest of the surface is then primed with the appropriate MARISEAL primer (step 3).

Surface Waterproofing
The MARISEAL waterproofing coating is being applied on the prepared surface (step 7). The MARISEAL FABRIC is applied as previously described (step 8, 9, 10).

Top-coat application
After curing of the waterproofing membrane, the appropriate MARISEAL top coat is being applied on the entire surface (step 11).
SUCCESSFUL PRESENCE IN OVER 45 COUNTRIES WORLDWIDE

SOLE DISTRIBUTOR & AUTHORIZED APPLICATOR:

DESERT ROOFING & FLOORING LLC
(P.O. BOX 185, Awir Industrial Area, Ras Al Khor, Dubai UAE)
Tel: +971-4-3331003/9, Fax: +971-4-3331427, Email: drc-oleim@ae