

# **Waterproofing Solutions**

walkable and vehichle-accessible surfaces rooftops, balconies, pools, road infrastructures, tunnels, dams





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# MEMBRAPOL: CUTTING-EDGE SOLUTIONS FOR BUILDING



**Membrapol develops intelligent building systems.** Membrapol's chemical products are applied in the building industry and construction market.

Thanks to its ability to identify new construction technologies well in advance, **Membrapol today is a market leader in the** research, production and marketing of polyurethane and epoxy products and systems.

The constant investment in **research and technological development** and the proven managerial experience allow Membrapol to **develop high quality innovative products and systems** every day.

Products and systems achieve the **best results even under the worst exposure conditions**. Membrapol waterproofing systems are recommended for many surfaces.

**Membrapol offers great attention to architects, engeneers, site managers and contractors** by constantly passing on knowledge about the products and systems produced with training and assistance.

# EASY APPLICATION

Membrapol understands and predicts the contemporary requirements of civil and industrial construction. **The systems and products provided to the construction field are userfriendly,** designed for application with rollers and trowels, and do not require significant dismantling of existing structures, thus significantly cutting down on costs and labor time.

Beyond the superior quality of its products, Membrapol provides on-site support during installation and employs a highly skilled technical team capable of delivering tailored solutions that satisfy the specific demands of designers and customers.

# SUSTAINABILITY AND RESPECT FOR THE ENVIRONMENT

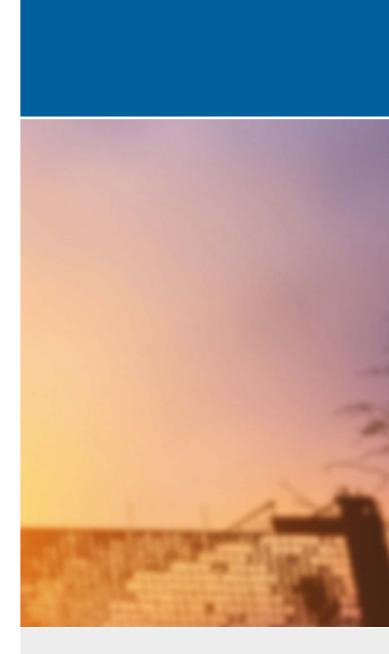
Membrapol focuses its research on creating products that promote **sustainable construction**. The systems developed are designed to be low-emission and enhance the energy efficiency of buildings.

The company conducts its activities according to an internal Code of Ethics, which embodies the firm's principles and serves as a governance model for all who interact with Membrapol. This Code of Ethics is a testament to our core principles and values, accessible to employees, suppliers, partners, institutions, and the communities we serve.

Globally, the Membrapol Code of Ethics governs both internal and external conduct, upholding the utmost respect for humanity and the environment, ensuring fair competition, and maintaining honesty, integrity, equity, and excellence in work.

More information on www.membrapol.it





# FUNDAMENTAL REQUIREMENTS FOR A WATERPROOFING INTERVENTION

# TECHNOLOGY

#### ATERPROOFING. WHY?

Waterproofing is a crucial aspect of building construction, designed to make surfaces impervious to water by applying one or more layers of appropriate materials. This process safeguards various construction elements, including foundations, floors, walls, cisterns, sumps, and swimming pools. The selection of materials varies based on factors such as aesthetics, thickness, support structures, the purpose of waterproofing, application techniques, climatic conditions, weight, and cost.

#### **BASIC WATERPROOFING PRODUCT PERFORMANCES**



**Capillary Or Positive Pressure Water** Impermeability: the ability of a coating, in adhesion to the substrate, to resist capillary rise or a defined hydraulic pressure exerted directly on the coating.



**Resistance To Freezing And** Thawing Cycles: durability of the coating, after being subjected to 50 cycles of sudden temperature changes, even in the presence of de-icing salts.



# **Negative Pressure Water Impermeability:** the ability of a

coating, in adhesion to the substrate, to withstand a defined hydraulic pressure exerted at the extrados of the substrate



**Chemical Resistance:** is the property of the waterproofing system to maintain its technological characteristics when subjected to contact with chemical agents, in varying concentrations and for different time spans.



Breathability: property of a waterproofing system to allow, to a lesser or greater extent, the passage of vapour through its stratigraphy.



**Uv Proofing:** resistance of the coating to UV radiation, where it is intended for outdoor use. Membrapol technology has been developed and tested in laboratories to protect the waterproofing coating from UV radiation over time.



Abrasion Resistance: ability of a coating, in adhesion to the substrate, to resist abrasive action.



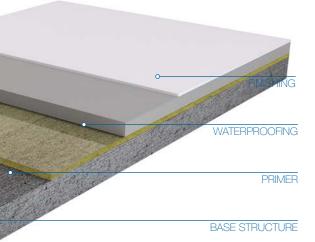
Impact Strength: resistance of a coating adhering to the substrate to deformation caused by a falling mass.

#### COATING

Membrapol's waterproofing product line offers a comprehensive range of technologies designed to protect new structures and address the sealing challenges of existing ones. The systems developed by Membrapol cater to all customer requirements for waterproofing and surface restoration exposed to the elements, utilizing advanced products that are environmentally friendly. The full range of products enables to combine ten distinct waterproofing systems, including colored and transparent polyurethane, polyurea, cementitious systems, systems with acrylic and transparent resins, epoxy-cementitious, epoxy-bituminous, and epoxy systems suitable for food contact and underwater applications. The array of stratigraphies modern standards and technologies have developed cater to both residential and industrial waterproofing needs. The flexibility of Membrapol systems ensures the fulfillment of any requirement, consistently providing a secure and durable solution. Membrapol systems consist of three essential product categories:

- Primer;
- Waterproofers;
- UV-proofing coatings.





# WATERPROOFING SYSTEMS



#### THE BENEFITS OF OUR WATERPROOFING SYSTEMS

- Easy and safe installation on moving, steeply sloping or vertical surfaces
- Continuous layers with no welds, joints and low unit weight
- Easy laying and low maintenance
- Ability to withstand various operating conditions: weather resistance, chemical resistance, resistance to foot traffic and wheeled traffic
- Availability of finishes in a wide range of colours

#### LIQUID MEMBRANES ALSO HAVE ADVANTAGES IN THE CASE OF

- Maintenance of old bitumen-based membranes
- Waterproofing without demolition of terraces and balconies
- Positive or negative side waterproofing of structures
- Waterproofing of road and rail bridge and viaduct deck slabs
- Waterproofing of driveway, parking floors and ramps (car parks)
- Worth walls, plasters or prefabricated infill panels with micro-cracks
- Waterproofing of roofs insulated with polyurethane foam
- Waterproofing of tanks for the containment of water, food solids and wine
- Waterproofing of tanks for the containment of leachates and residual chemical substances from industrial processes



ine chemical substances from industrial processes

# PRIMERS

# FINISHINGS

The very first category of products following substrate preparation for waterproofing includes primers. Within this category, there are three primary types of products: adhesion promoters (used, for instance, on dusty and/or porous surfaces or non-absorbent surfaces), consolidating primers (applied, for example, to surfaces lacking adequate resistance), and counter-thrust primers (utilized, for instance, on damp surfaces). Membrapol has developed solutions tailored for various types of support.





Epoxy primer with aliphatic cycle hardener in water dispersion for multipurpose use. To be used on absorbent and/or chalking surfaces, e.g. old bituminous sheaths, cement tiles, chalking cement screeds, etc. **Complies with EN 1504-2.** 

#### NON-ABSORBENT SUPPORT - MEMBRAPOL PRIMER EPOX/BIANCO

Two-component, anti-carbonating epoxy primer in water dispersion, applied to ceramics, porcelain stoneware, concrete, etc. It is used as an adhesion bridge in chemical-resistant, continuous immersion and food-safe coating systems.







#### SUPPORTO IN CONTROSPINTA - MEMBRAPOL PRIMER 900 TIX

Special three-component primer based on epoxy resins and reactive inorganic compounds for preparation on wet surfaces. It forms an effective counterthrust water barrier up to 10 ATM. For use on surfaces with negative pressure.

Complies with EN 1504-2.

#### ALUMINIUM OR PLASTIC SURFACES - MEMBRAPOL PRIMER M.F.

Special primer based on epoxy resins with adhesion on carbon steel, concrete, ceramic material, old plastics and old coatings. High anticorrosion power and can be overcoated even after a long time and even with solvent-free coatings. 4-2. **Complies with EN 13813**.

#### **CONCRETE SURFACES - MEMBRAPOL PRIMER EPOX/PUR**

Solvent-free epoxy primer, characterised by excellent adhesion on concrete and, concrete derivates. Suitable for all work on concrete or where special tenacity and anchorage of the subsequent coating is required. **Complies with EN 13813**. Membrapol finishes are aliphatic polyurethane coatings characterised by excellent resistance to UV rays and water stagnation. Thanks to their flexibility, extreme ease of application and high resistance to abrasion, they are specially designed and engineered as protective layers for Membrapol waterproofing. In addition, where required, they provide the surface with anti-slip properties. They can be applied both externally and internally, even in continuous contact with water. Membrapol finishes have an aesthetically pleasing appearance, thanks to the numerous colours available.











#### MEMBRAPOL 400 E

- Highly elastic two-component polyurethane gloss finish in UV-stable solvent solution.
- Specifically formulated as a protective layer in waterproofing kits as the **Membrapol 250**.

#### MEMBRAPOL 440

UV-stable, wear-resistant, dustproof, non-slip finish coating based on polyurethane resins and aliphatic isocyanates.

#### MEMBRAPOL 200 PU - MEMBRAPOL 200 PVC

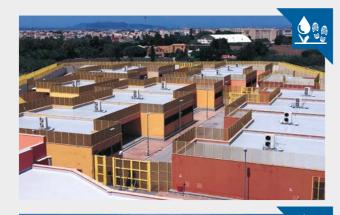
UV-stable anti-corrosive gloss finish on a polyurethane base with aliphatic isocyanates stable to continuous immersion in fresh and salty water. Resistant to aggressive industrial and marine atmospheres. No yellowing over time with excellent gloss and colour retention characteristics. The PVC version can be applied directly onto PVC sheets.

#### MEMBRAPOL 250 W REFLEX

Single-component, heat-insulating and ultra-reflective waterproofing finish in water emulsion with excellent UV reflection, excellent impermeability, mechanical, chemical, thermal and weathering properties. Recommended for roofs covered with photovoltaic panels.

Ideal top coat for MEMBRAPOL 250 W.

# TIPOLOGIE D'IMPERMEABILIZZAZIONE



#### WALKABLE ROOFTOPS

Excellent products for pedestrian, UV-exposed roofs. These are waterproofing products with excellent excellent chemical-physical-mechanical properties, ideal for coating works on exposed roofs.

#### VEHICLE ACCESSIBLE ROOFTOPS

Coatings based on polyurethane or polyurea elastomers are ideal for waterproofing vehicle accessible roofs, such as car parks and driveways..

#### **ROOFTOPS AND BALCONIES**

The company's quality product are suitable for both waterproofing and aesthetically finishing floor coverings, as well as restoring balconies deteriorated by aggressive weather conditions.



#### POOL WATERPROOFING

Swimming pools, in most cases, are structures made of reinforced concrete constantly in contact with water, both in positive and negative pressure. Membrapol products are suitable for waterproofing both thrusts ensuring a final result with different decorative effects of your choice.









#### **UNDER-TILES WATERPROOFING**

Membrapol engineered specific waterproofing systems suitable for under-tiling.

#### FOOD TANKS AND SILOS WATERPROOFING

The waterproofing process for tanks and silos used in food storage requires the use of non-toxic materials. Membrapol provides an epoxy-polyamide coating that is devoid of aromatic amines, solvents, and phthalic anhydride derivatives, making it suitable for application on tanks, silos, and concrete containers that hold food liquids.

## WATERPROOFING OF CONTAINMENT TANKS, CHEMICAL TANKS, SEWAGE TREATMENT PLANTS

Membrapol waterproofing products are designed to withstand the aggressiveness of water and guarantee maximum adhesion to the surfaces of tanks, chemical reservoirs or sewage treatment plants, regardless of the type of material: brick, plastic, concrete and much more.

#### WATER INFILTRATION PLUG

Specifically formulated to plug water infiltration, Membrapol products are applied by injection to cracks, cracks, joints, crawl spaces or other water-bleeding discontinuities.

# TIPOLOGIE D'IMPERMEABILIZZAZIONE



#### **CONCRETE FAÇADES WATERPROOFING**

Membrapol coating protect concrete from the harmful effects of smog, chlorides, sulphates and carbon dioxide. The waterproofing adheres perfectly to the concrete, guaranteeing excellent impermeability.



Membrapol provides cutting-edge solutions for the anticorrosive protection of steel and concrete structures. These structures can be fully submerged or positioned along shorelines, and are compatible with both fresh and saltwater environments.

Additionally, they can be used as effective sealants to prevent water leaks in canals, pipelines, and basins.

#### WATERPROOFING FOR DAMS AND CANALS

Membrapol provides a range of waterproofing solutions for dams and irrigation canals. The construction of such hydraulic structures necessitates adequate protection to prevent water infiltration, which could compromise their stability and safety.











#### WATERPROOFING VIADUCTS AND TUNNELS

Membrapol boasts a wealth of experience in waterproofing viaducts and tunnels, utilizing cutting-edge products that endure over time. Indeed, for such road works, it is crucial to employ top-tier polymeric and cementitious coatings that prevent any potential flaws and withstand ongoing stress.

#### WALLS AND FOUDATIONS WATERPROOFING

Structural elements in contact with the soil, such as retaing walls, onground slabs and foundations, are subject to infiltration and diffusion of moisture. Membrapol offers products designed to guarantee correct waterproofing and durability even under negative pressure.

#### **ELEVATOR WELLS WATERPROOFING**

Water infiltration in the lift shaft leads to structural problems. Membrapol offers products designed to protect the lift shaft from the aggression of water in negative water pressure.

# WALKABLE ROOF SURFACES



Walkable roofs, are increasingly being integrated into building designs as a natural extension of living spaces. The waterproofing for these areas must be both elastic and durable to absorb mechanical stresses caused by differential movements of the underlying surface, such as roof slabs, sloping screeds, or thermal insulation, and to withstand the stresses from the floor above. Membrapol products provide quick, straightforward, durable, and visually appealing waterproofing solutions for pedestrian surfaces in residential buildings. These products can be applied to new, exposed substrates or to existing materials like tiles, concrete, or bituminous sheathing.

Membrapol offers six distinct systems, each of which can be enhanced with various colored UV-resistant finishes.

### MEMBRAPOL 250

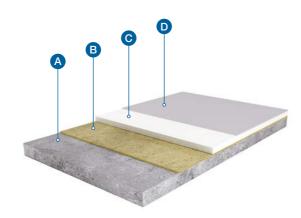
Single-component polyurethane waterproofing - enables the construction of roofs resistant to wear, weathering and foot traffic;

### MEMBRAPOL 250 ONE

Single-component, aliphatic polyurethane waterproofing agent - for use as a primer, waterproofing agent and UV-stable finish;

MEMBRAPOL 250 WATER - MEMBRAPOL 250 IBRIDO

Single-component polyurethane waterproofing membranes in water dispersion - non-toxic and odourless.



A - Supporto
B - Primer
C - MEMBRAPOL 250
D - Finitura



A - Base StructureB - MEMBRAPOL 250 ONE



A - Base StructureB - MEMBRAPOL 250 WATER o MEMBRAPOL 250 IBRIDO

#### Waterproofing Solutions



### MEMBRAPOL 250

One-component, UV-stable, hygro-hardening, pure polyurethane elastomer waterproofing agent, used for waterproofing roofs such as: terraces, balconies, tanks, ducts, polyurethane foam insulation. Self-levelling and 100% water vapour permeable.

#### PRODUCT FEATURES

- High adhesion
- Excellent mechanical properties
- Excellent tensile and shear resistance
- High chemical inertia
- Water impermeable
- Permeable to water vapour
- Reflects sunlight
- Resistant to common detergents, oils and chemicals
- Elasticity >800%.

### MEMBRAPOL 250 ONE

Ready-to-use, single-component, liquid aliphatic polyurethane membrane for use as a primer, waterproofing and UV-stable finish, used to waterproof any roof and roofing surface, balconies, terraces and porches.

#### PRODUCT FEATURES

- Work as primer aswell, waterproofing and top coat
- High adhesion on any surface, excellent mechanical resistance 100% polyurethane
- Elasticity >800%.
- UV-stable, weatherproof and temperature resistant
- 100% self-levelling and breathable
- Minimum application temperature: 5°C (in the absence of condensation)

### MEMBRAPOL 250 WATER

Single-component polyurethane waterproofing in water dispersion containing calibrated mineral fillers with barrier effect, giving the product excellent waterproofing, mechanical, chemical, thermal and UV resistance properties

#### PRODUCT FEATURES

- Non-toxic, solvent-free
- Excellent mechanical properties and high chemical inertness
- Impermeable to water and permeable to water vapour
- Long-lasting

### MEMBRAPOL 250 IBRIDO

Elastic waterproofing formulated with acrylic resins modified with elastomeric polyurethane resins in water dispersion, a product with excellent impermeability, mechanical, chemical and UV resistance properties.

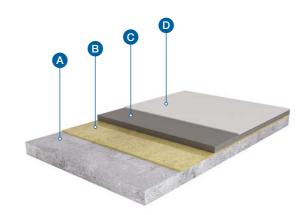
- Non-toxic, solvent-free
- Excellent mechanical properties and high chemical inertness
- Impermeable to water and permeable to water vapour
- Long-lasting
- Can be painted

# WALKABLE ROOF SURFACES



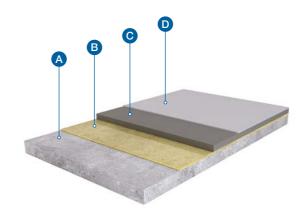
# AB

A - Contrete or TilesB - MEMBRAPOL CEM 100 P



A - Base Structure
B - Primer
C - MEMBRAPOL 301 VK

D - Finishing



A - Base Structure
B - Primer
C - MEMBRAPOL 560
D - Finishing

### MEMBRAPOL CEM 100 P

Waterproofing mortar based on special hydraulic binders - excellent coloured waterproofing cement mortar to be left exposed.

### MEMBRAPOL 301 VK

Polyurea waterproofing agent - offers high curing speed, exceptional resistance to hydrolysis, puncture and abrasion;

### MEMBRAPOL 560

Polyurea waterproofing agent with cold application - after curing it is highly elastic and tough.

#### Waterproofing Solutions



### MEMBRAPOL CEM 100 P

A two-component, highly elastic cement-based waterproofing agent that can be applied by roller, suitable for waterproofing concrete or masonry surfaces, ceramic floors, plaster and cementitious screeds; it meets the requirements of standard 1504-2 for coatings: moisture control product 2.2, physical resistance 5.1, chemical resistance 6.1, resistivity increase 8.2.

#### PRODUCT FEATURES

- Continuous, waterproof, tough and flexible layer, withstands micro cracking of the substrate (crack-bridging)
- High adhesion, breathability, impermeability and high flexibility
- Excellent ability to saturate surface imperfections
- High water vapour permeability and good carbon dioxide impermeability

### MEMBRAPOL 301 VK

High-performance polyurea elastomeric system, applicable with Bi-mixer system, based on aromatic isocyanates and special polyol blends, meets the requirements of standard 1504-2 for coatings: moisture control product 2.2, physical resistance 5.1, chemical resistance 6.1, resistivity increase 8.2.

#### PRODUCT FEATURES

- Modulated curing speed for levelling
- and achievement of final mechanical properties
- High resistance to hydrolysis, punching and abrasion
- Fluid product for producing coatings of 2-4 mm thickness
- Minimum application temperature: 5°C (in the absence of condensation)
- Elasticity >480%.

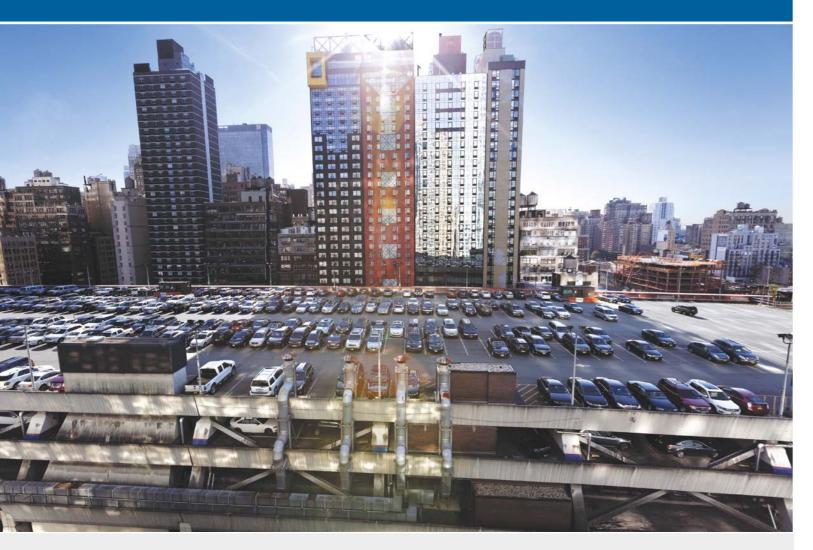
### MEMBRAPOL 560

High-performance polyurea waterproofing agent applicable in the fluid and cold state, based on isocyanate prepolymers and a blend of special modified polyamines, free from plasticisers.

#### PRODUCT FEATURES

- Fast curing (pot life 7-8 minutes) with achievement of final mechanical performance
- High elasticity, toughness, puncture, abrasion and wear resistance with crack bridging capability
- Insensitive to humidity
- Elasticity >600%.

# VEHICLE-ACCESSIBLE SURFACES



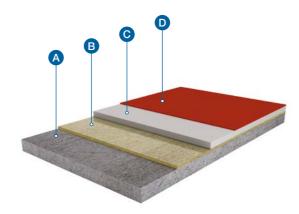
Vehicle-accessible surfaces, particularly in large-scale infrastructure, require not just a safe waterproofing system but a durable one ensuring long-lasting durability under operational conditions. Carriageway roofs, constantly exposed to various stresses, need proper waterproofing treatment to guard against weathering, cracking, and abrasion. Membrapol waterproofers, derived from pure polyurea or polyurethane, boast outstanding physical and mechanical properties. They are an excellent choice for waterproofing new constructions and for restoring the functionality and aesthetic appeal of existing structures. Membrapol products are suitable for application on a variety of substrates with a tear resistance of at least 1.5 MPa.

### MEMBRAPOL 600 VK

Pure polyurea waterproofing - enables the construction of roofs that are resistant to wear, weathering and driveway traffic.

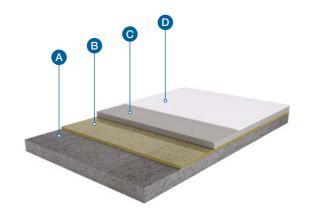
### MEMBRAPOL 280

Two-component polyurethane waterproofing - the product's innovative formula makes it possible to create a driveway waterproofing with high chemical, physical and mechanical resistance.



A - Concrete
B - Primer
C - MEMBRAPOL 600 VK

D - Finishing



A - Concrete

B - Primer

C - MEMBRAPOL 280

D - Finishing

#### Waterproofing Solutions



### MEMBRAPOL 600 VK

A waterproofing system based on pure polyurea for the production of quick-hardening waterproofing and with high chemical, physical and mechanical resistance. Can only be applied by hot airless Bi-mixer. Very fast hardening with achievement of final mechanical performance.

#### PRODUCT FEATURES

- 100% dry residue
- Can also be applied vertically and on the ceiling
- Impermeable to water and excellent resistance to aggressive chemicals
- Applicable from -10°C to +40°C (substrate temperature)
- Dew-point  $> 5^{\circ}$ C (in the absence of condensation)
- Working temperature -35 to + 85°C
- Shore D >45
- Tear resistance >12 KN/m
- Elasticity > 350%.

### MEMBRAPOL 280

New-generation, self-levelling two-component polyurethane system for manual application, for the construction of of vehicle waterproofing with rapid hardening and high and with high chemical, physical and mechanical resistance.

#### PRODUCT FEATURES

- Excellent resistance to water and oils
- High abrasion resistance
- Good resistance to acidic and basic solutions
- Excellent adhesion on all types of substrates
- Good degree of elasticity
- Shore A/D >80/25
- Elasticity >90%.

# RESIDENTIAL TERRACES AND BALCONIES



Balconies and terraces are a pleasant extension to the outside of the house, they are living spaces that are continuously exposed to the weather and subject to progressive deterioration. Membrapol waterproofing systems are suitable for waterproofing newly built balconies and terraces, but also already tiled as there is no need to remove the pre-existing flooring. Rapid intervention and high quality are the two factors that distinguish Membrapol waterproofing systems. Balconies and terraces can be perfectly waterproofed with an elegant aesthetic result, thanks to a wide variety of decorative effects.

### MEMBRAPOL 250 MONOCROMATICO O DECORATIVO

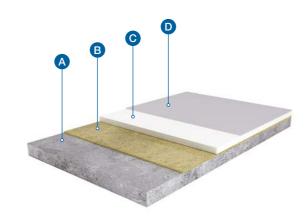
Single-component polyurethane waterproofing agent - allows the creation of roofs that are resistant to wear, weathering and foot traffic, with the application of MEMBRAPOL FLAKES providing a pleasant decorative effect

### MEMBRAPOL CEM 100 P DECORATIVO

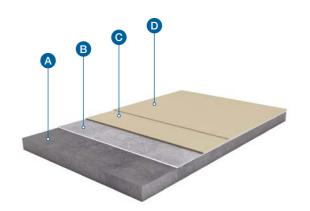
Decorative cement waterproofing - allows the creation of decorative roofs with a textured effect thanks to the application of MEMBRAPOL ESSENCE FINITURA, resistant to wear, weathering and foot traffic.

### MEMBRAPOL TRASPARENTE

Transparent polyurethane waterproofing - transparent membrane that can be applied to existing floor tiles, cotto, etc.

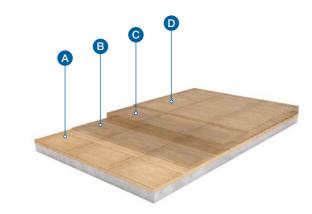


A - Supporto
B - Primer
C - MEMBRAPOL 250
D - Finitura



A - Supporto B - MEMBRAPOL CEM 100 P

- C MEMBRAPOL ESSENCE FINITURA
- D Finitura



A - Piastrelle
B - Primer
C - MEMBRAPOL TRASPARENTE
D - Finitura

#### Waterproofing Solutions



### MEMBRAPOL 250

One-component, UV-stable, hygro-hardening, pure polyurethane elastomer waterproofing agent, used

for waterproofing roofs such as: terraces, balconies, tanks, ducts, polyurethane foam insulation. Self-levelling and 100% water vapour permeable.

#### PRODUCT FEATURES

- High adhesion
- Excellent mechanical properties
- Excellent tensile and shear strength
- High chemical inertness
- Impermeable to water and permeable to water vapour
- Reflects sunlight
- Resistant to common detergents, oils and chemicals
- Elasticity >800%.
- Monochrome effect with MEMBRAPOL 400 E
- Decorative effect with coloured MEMBRAPOL FLAKES

### MEMBRAPOL CEM 100 P DECORATIVO

A two-component, highly elastic cement-based waterproofing agent that can be applied by roller, suitable for waterproofing concrete or masonry surfaces, ceramic floors, plaster and cementitious screeds; it meets the requirements of standard 1504-2 for coatings: moisture control product 2.2, physical resistance 5.1, chemical resistance 6.1, resistivity increase 8.2.

#### PRODUCT FEATURES

- Continuous, waterproof, tough and flexible layer, withstands micro cracking of the substrate (crack-bridging)
- High adhesion, breathability, impermeability and high flexibility
- Excellent ability to saturate surface imperfections
- High water vapour permeability and good carbon dioxide impermeability
- Decorative effect with MEMBRAPOL ESSENCE FINITURA

### MEMBRAPOL TRASPARENTE

It is a single-component, polyurethane, transparent glossy aliphatic waterproofing membrane for durable waterproofing. Used for waterproofing balconies, terraces, glass surfaces, plexiglass, natural stone and all surfaces where the original appearance must be maintained.

- High adhesion
- Excellent mechanical, tensile and shear properties
- High chemical inertness
- Impermeable to water and permeable to water vapour Self-levelling
- UV-stable and non-yellowing
- Resistant to water immersion
- Breathable

# POOL WATERPROOFING



Pool waterproofing is essential as the structure is in continuous contact with the water it contains and with the water in the ground. it is necessary to choose products that can protect the integrity of the pool over time, while maintaining its beauty and elegance. We have designed waterproofing solutions on new construction substrates (e.g. reinforced concrete), on old waterproofing and for application over existing ceramic tiles. Membrapol waterproofings are characterised by excellent impermeability, chemical and UV resistance.

### MEMBRAPOL POOL MATERIA

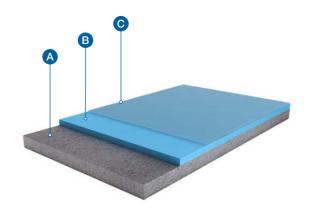
Polymeric epoxy cement waterproofing - special coloured product, stable to continuous immersion in water, creates protective and flexible coatings.

### MEMBRAPOL 600 VK ES

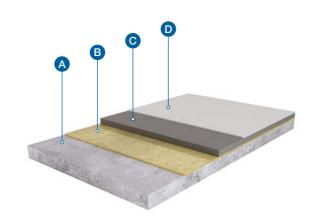
Polyurea waterproofing - thanks to its high tear resistance, exceptional elasticity characteristics and chemical resistance, it is suitable for use as a waterproofing membrane for swimming pools.

### MEMBRAPOL PRIMER 900 TIX

Special primer based on epoxy resins and reactive inorganic compounds for the preparation of surfaces, even damp surfaces.

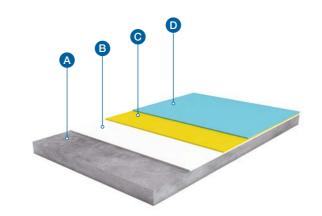


- A Concrete B - MEMBRAPOL POOL MATERIA
- **C** Finishing layer



A - Concrete B - Primer

- C MEMBRAPOL 600 VK ES D - MEMBRAPOL 200 PU



A - Concrete
B - MEMBRAPOL PRIMER 900 TIX
C - Primer
D - MEMBRAPOL 200 PU

#### Waterproofing Solutions



### MEMBRAPOL POOL MATERIA

A two-component epoxy-cement waterproofing agent, it allows for waterproofing and continuous pool coating in one solution: a seamless surface with textural texture; meets the requirements of the European standard EN 1504-2 "product for protection against penetration risks 1.3 (C) - moisture control 2.2 (C) - increased resistivity 8.2 (C)."

#### PRODUCT FEATURES

- Continuous, waterproof, tough and flexible layer
- Resistant to continuous immersion in water
- High wear, abrasion and chemical resistance
- Seamless textured finish with unique aesthetics
- Pleasant to the touch and safe due to the non-slip effect
- Easy application even on surfaces with irregular geometry

### MEMBRAPOL 600 VK ES

High-performance polyurea elastomeric system, applicable with Bi-mixer system, based on aromatic isocyanates and special polyol blends, meets the requirements in 1504-2 standard for coatings: moisture control product 2.2, physical resistance 5.1, chemical resistance 6.1, resistivity increase 8.2.

#### PRODUCT FEATURES

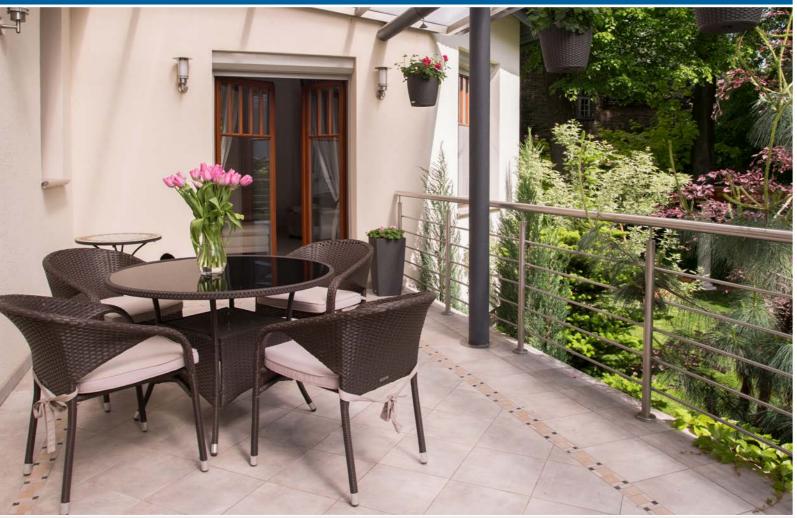
- Modulated curing speed for leveling and achievement of final mechanical properties
- High chemical, hydrolysis and abrasion resistance
- Flowable product for making coatings 2/4 mm thick
- Minimum application temperature: 5°C (in the absence of condensation)
- Shore D > 45
- Elasticity >600%.
- Tear resistance >12 KN/m

### MEMBRAPOL PRIMER 900 TIX

Adheres to both compact and porous building materials even when wet, and on uncured concrete. It forms an effective counterthrust water barrier up to 10 ATM and is permeable to water vapor. MEMBRAPOL PRIMER 900 TIX can be overcoated with any cycle of epoxy, polyurethane, and epoxy-polyurethane resins, at low, medium, and high thickness. MEMBRAPOL PRIMER 900 TIX is a thixotropic coating that is easy to apply and solvent-free. Glossy monochrome effect with MEMBRAPOL 200 PU.

- Treatment of wet cementitious surfaces to achieve anchorage of anticorrosive protective coatings, waterproofing
- Layer impermeable to water but permeable to water vapor
- After curing and treatment with suitable waterproof finishes, withstands 10 bar of water back pressure.
- Applicable from +5°C to +45°C with U.R. 85% maximum on substrate
- Operating temperature -35°C to +110°C (in air) +65°C in water

# UNDERR-TILING WATERPROOFING



Membrapol has designed three different waterproofing systems for balconies, terraces and surfaces intended to be tiled. Traditional ceramic coating can be applied directly over the waterproofing; alternatively, products from the Membrapol My Home & My Work product-line can be applied to achieve a variety of decorative effects (troweled, clouded, monocormatic, etc.).

### MEMBRAPOL CEM 100 P

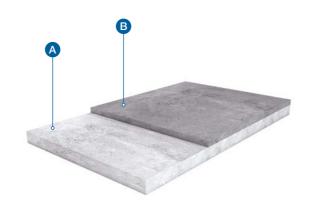
Waterproofing agent based on special hydraulic binders-excellent cementitious waterproofing mortar for surfaces to be tiled.

### MEMBRAPOL 120 C

Elastocementitious waterproofing agent - forms a continuous, waterproof, tough and very flexible layer compatible with ceramic, mosaic and stone coverings

### MEMBRAPOL 250

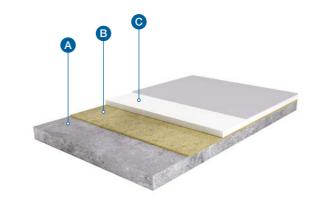
Single-component polyurethane waterproofing agent-allows waterproofing for subsequent tile installation if properly dusted with quartz fillers.



A - Concrete/TilesB - MEMBRAPOL CEM 100 P



A - ConcreteB - MEMBRAPOL 120 C



A - Base-structure
B - Primer
C - MEMBRAPOL 250 with quartz

#### Waterproofing Solutions



### MEMBRAPOL CEM 100 P

Roller-applicable, two-component, high-elasticity cementitious waterproofing agent suitable for waterproofing concrete or masonry surfaces, ceramic floors, plasters and cementitious screeds; meets the requirements in standard 1504-2 for coatings: moisture control product 2.2, physical resistance 5.1, chemical resistance 6.1, resistivity increase 8.2.

#### PRODUCT FEATURES

- Continuous, waterproof, tough and flexible layer, withstands microcracking of the substrate (crack-bridging)
- High adhesion, breathability, waterproofness and high flexibility.
- Excellent ability to saturate surface imperfections
- High water vapor permeability and good carbon dioxide impermeability

### MEMBRAPOL 120 C

Two-component elasto-cementitious sheathing in aqueous dispersion, premixed, thixotropic, composed of selected hydraulic binders, high quality aggregates and appropriate grain size, and special additives. It meets the requirements of European standard EN 1504-2: penetration protection product 1.3 (C) - moisture control 2.2 (C) - resistivity increase 8.2 (C).

#### PRODUCT FEATURES

- Continuous, waterproof, tough and flexible layer
- Compatible with ceramic, mosaic and stone coatings
- Excellent ability to saturate surface imperfections
- Can be applied to existing coatings and also vertically
- Ability to apply thicknesses up to 2 mm per layer Flexible even at very low temperatures (-25°C)
- Applicable both indoors and outdoors

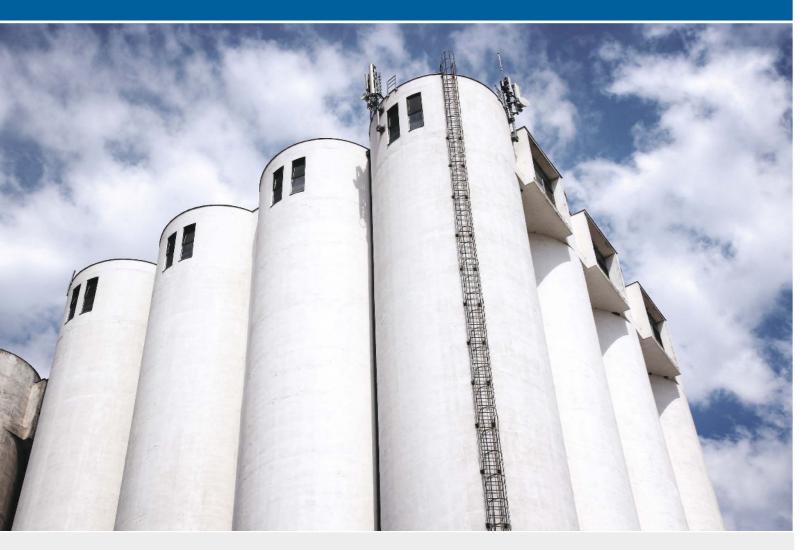
### MEMBRAPOL 250 WITH QUARTZ

UV-stable, hygro-hardening, single-component pure polyurethane elastomer-based waterproofing agent used to waterproof roofs such as: terraces, balconies.Self-leveling and 100% water vapor breathable.

#### PRODUCT FEATURES

- High adhesion
- Excellent mechanical properties
- Excellent tensile and shear strength
- High chemical inertness
- Impervious to water
- Permeable to water vapor
- Reflects sunlight
- Resistant to common detergents, oils and chemicals
- Elasticity >800%.

# IMPERMEABILIZZAZIONE VASCHE E SILOS CONTENENTI ALIMENTI



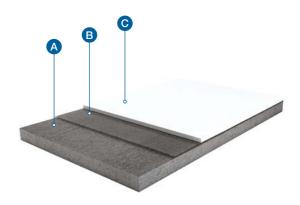
Waterproofing of tanks and silos for food containment, should be done with non-toxic products. Membrapol offers products specially designed to ensure high standards of hygiene and safety, which are essential for those working in the sector, as well as being resistant and easy to clean. Membrapol products are suitable to come into contact with food, as they fully comply with the requirements of Italian Ministerial Decree March 21, 1973 (Ordinary Supplement of the Official Gazette No. 104 of April 20, 1973 and subsequent amendments), EU Regulation (EU) No. 10/2011, and subsequent updates, and Regulation (EC) No. 1935/2004.

### MEMBRAPOL 600 W

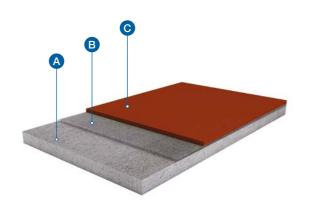
Non-toxic epoxy vitrifying waterproofing - two-component high thickness coating suitable for coating silos containing dry foods such as grain etc. With excellent mechanical strength, glossy ceramic appearance and does not alter the taste or odor of food substances.

### MEMBRAPOL 650 W

Non-toxic epoxy vitrifying waterproofing agent - for metal and concrete containers intended for the containment of wine and winemaking by-products. Especially suitable for tanks, vats, silos. The highly compact and smooth surface prevents the formation of scale and impurities.



A - Concrete B - Primer C - MEMBRAPOL 600 W (WHITE)



A - Concrete

B - Primer

C - MEMBRAPOL 650 W (RED or YELLOW)

#### Waterproofing Solutions



### MEMBRAPOL 600 W

Solvent-free two-component coating based on non-toxic epoxypolyamine resins, with stable insoluble pigmentation and waterproof barrier effect with high chemical resistances, suitable for the containment of drinking water and solid food substances according to M.D. 174/2004; meets the requirements in 1504-2 standard for coatings: moisture control product 2.2, physical resistance 5.1, chemical resistance 6.1, resistivity increase 8.2.

#### PRODUCT FEATURES

- Ease of application
- A 300-micron layer is obtainable
- Complies with all the relevalt Eu regulations
- Excellent chemical resistance
- Excellent mechanical abrasion resistance properties
- Forms a vitrified film
- Resistant to detergents, oils and common chemicals
- White color specific for food contact

### MEMBRAPOL 650 W

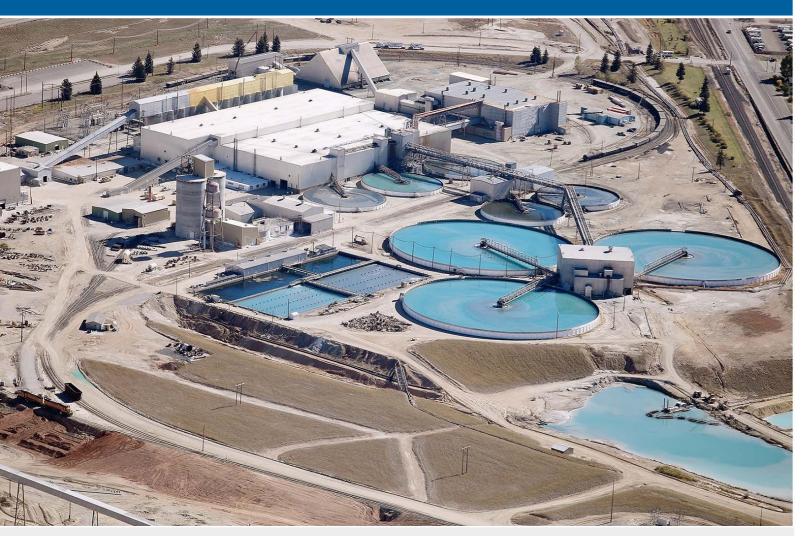
Non-toxic vitrifying waterproofing system with stable and insoluble pigmentation, high chemical-mechanical resistance,

and in particular with very high resistance to contact with aqueous solutions, alcoholic solutions such as wine, acidic solutions such as juice

fruit and oil; it meets the requirements in standard 1504-2 for coatings: moisture control product 2.2, physical resistance 5.1, chemical resistance 6.1, resistivity increase 8.2.

- Ease of application
- Excellent chemical resistance
- Excellent mechanical abrasion resistance properties
- Free of aromatic amines
- Forms a glassy film
- Operating temperatures from -20°C to +45°C in immersion (+90°C in air)
- Applicable on pipes, steel tanks and concrete
- Certified for contact with liquid substances such as: wine, vegetable oils, beer, etc.
- Certified for contact with solid substances such as: grain, cereals, feed, etc.
- Up to 250-300 microns layers in a single coat
- Available in yellow and red for wine containers

# WATERPROOFING FOR CONTAINMENT TANKS, CHEMICAL TANKS, PURIFICATION PLANTS



Membrapol offers a wide range of systems for waterproofing holding tanks, sewage treatment plants and chemical tanks. These are structures exposed to contact with water and chemical agents, so it is necessary to protect them from any infiltration with coatings in hydrostatic, positive and negative buoyancy. Membrapol waterproofing products resist the aggressiveness of water, ensuring maximum adhesion to the surfaces of tanks, chemical reservoirs and sewage treatment plants, regardless of the type of material.

### MEMBRAPOL 600 EB/TIX

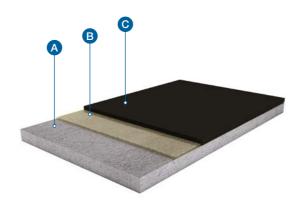
Epoxy-bituminous waterproofing - thick, protective and anticorrosive coating. It is used for medium to thick protection of concrete and metal structures, especially those intended for aggressive water containment.

### MEMBRAPOL 140 OS

Osmotic waterproofing agent based on special hydraulic binders-cementitious waterproofing mortar for concrete or masonry surfaces in contact with even aggressive water.

### MEMBRAPOL 170 H/C

Cementitious osmotic waterproofing-cementitious waterproofing mortar designed and formulated to create a continuous, high-thickness coating on site that is characterized by excellent chemical-mechanical resistance.



A - Concrete B - Primer C - MEMBRAPOL 600 EB/TIX



A - ConcreteB - MEMBRAPOL 140 OS



A - ConcreteB - MEMBRAPOL 170 H/C

#### Waterproofing Solutions



### MEMBRAPOL 600 EB/TIX

Two-component, low-solvent epoxy resin-based product modified with elastic epoxy-polyamide resins and non-toxic bitumen. The product's thixotropy allows high layer thicknesses to be applied even vertically.

It is excellent when used as a barrier to prevent rising dampness and for industrial waterproofing.

#### PRODUCT FEATURES

- High protective and anticorrosive power
- Solvent and petroleum tar-free product
- High mechanical strength
- High resistance to acid, alkali and solvent vapors or splashes
- High resistance to fresh and salt water

### MEMBRAPOL 140 OS

Osmotic cementitious waterproofing agent for waterproofing concrete or masonry surfaces in contact with even aggressive water. Can be applied in two coats, manually or by machine, in total thickness from 1 to 2 mm; meets the requirements in 1504-2 standard for coatings: moisture control product 2.2, physical resistance 5.1, chemical resistance 6.1, resistivity increase 8.2.

#### PRODUCT FEATURES

- Continuous, waterproof, tough and slightly flexible layer
- Resistant to continuous immersion in water
- Ability to apply thicknesses up to 2 mm per layer
- Resistant up to 5 ATM in negative water pressure
- Excellent ability to saturate surface imperfections

### MEMBRAPOL 170 H/C

Osmotic, cementitious, gray, premixed, thixotropic mortar, with the addition of the quality aggregates and special additives reinforces the chemical-physical principle of osmosis on which the operation of the product is based. Doable thickness from 10 to 20 mm; meets the requirements in 1504-2 standard for coatings: moisture control product 2.2, physical resistance 5.1, chemical resistance 6.1, resistivity increase 8.2.

- Continuous, waterproof, tough and slightly flexible layer
- Resistant to continuous immersion in water
- Excellent chemical resistance
- High compressive strength
- Ability to apply thicknesses up to 20 mm per layer
- Resistant up to 5 ATM in negative water pressure
- Excellent ability to saturate surface imperfections

# WATER INFILTRATION PLUG



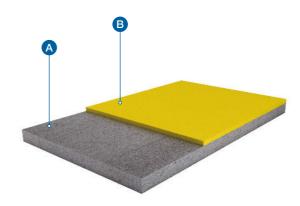
Membrapol's products for blocking water seepage, are applied by clogging by injection on cracks, lesions, joints, casting joints, crawl spaces or other water-losing discontinuities. The company solves any infiltration problem on concrete or masonry structures such as tunnels, hydraulic works, sewer collectors, basins, ponds and more. It also deals with blocking water seepage in damaged rocks, ensuring a soilconsolidating effect.

### MEMBRAPOL IDRO/PU

Two-component polyurethane waterproofing agent - reacts extremely rapidly in the presence of water, forming a closed-cell foam. Recommended for blocking water seepage in injured rocks and submerged or groundwater foundations and can be used as a soil consolidant. Works for plugging by injection on cracks, lesions, joints, etc.

### MEMBRAPOL 900 IS

Waterproofing agent based on special hydraulic binders and aggregates-rapid-setting special mortar formulated to instantly stop water at points of dripping or coming under pressure on concrete surfaces and masonry works in hydraulic works.



A - ConcreteB - MEMBRAPOL IDRO/PU



A - ConcreteB - MEMBRAPOL 900 IS

#### Waterproofing Solutions



### MEMBRAPOL IDRO/PU

- Two-component fluid polyurethane formulation i, which reacts extremely fast in the presence of water, forming a closed-cell foam.
- Recommended for the blocking of water seepage in damaged rocks and submerged or groundwater foundations, and can be used as a consolidant of soils. Works for plugging by injection on cracks, lesions, joints, etc.

#### PRODUCT FEATURES

- Fluid resin formulated to rapidly block water from injury
- Low viscosity, adjustable reactivity
- Reactive even at low temperatures
- Applicable from +3°C to +35°C

### MEMBRAPOL 900 IS

Single-component, ready-to-use powdered product based on of special hydraulic binders and aggregates. Mixed with water results in an ultra-fast-setting mortar. It provides immediate closure of water leaks, even under pressure, in concrete and masonry structures and repair of cracks and surface defects in concrete structures.

#### PRODUCT FEATURES

- Sets within 30 to 60 seconds
- Very rapid development of mechanical strengths
- Dimensional stability, not subject to shrinkage or detachment due to thermal variations
- Excellent ability to saturate surface imperfections
- Watertightness: the high mechanical strength guarantees the durability of the intervention throughout the life of the structure, without diminishing the initial characteristics
- Ease of use: requires only mixing with water, without special tools or skilled labor
- Applicable from +5°C to +30°C

# CONCRETE FAÇADES WATERPROOFING



Membrapol products for waterproofing of concrete façades effectively protect against the harmful action of smog, chlorides, sulfates and carbon dioxide. The waterproofing adheres perfectly to the concrete, making it waterproof and protecting it for a very long time

### MEMBRAPOL 900

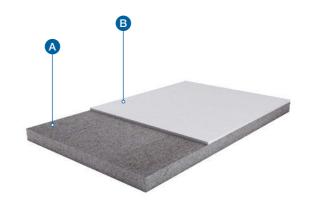
Waterproofing agent based on acrylic copolymers in aqueous dispersion-colored anticarbonating protective coating specifically for protecting exposed concrete, particularly resistant to alkalis, UV-resistant pigments and selected inert fillers.

### MEMBRAPOL 7000 SIL

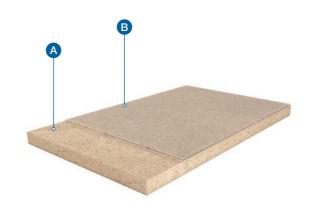
Formulated product based on water-soluble siloxane terpolymer resins, with strong protective action ,consolidating and with antiadhesive properies to make surfaces easy to clean and wash.

### MEMBRAPOL 800 S

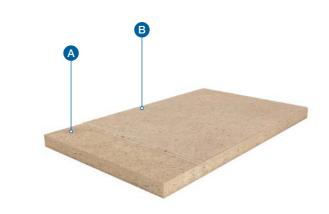
Priming and finishing product formulated with specific polysiloxane resins, solubilized in a solvent mixture capable of promoting penetration into the underlying layers and providing high water repellency and impermeability to stormy rainfalls.



A - ConcreteB - MEMBRAPOL 900



A - Base LayerB - MEMBRAPOL 7000 SIL



A - Base Layer B - MEMBRAPOL 800 S

#### Waterproofing Solutions



### MEMBRAPOL 900

Specific product for the treatment of exposed concrete. It has waterproofing, protective and decorative functions as it gives uniformity of color without altering the appearance of the substrate. MEMBRAPOL 900 exerts a strong protective action against concrete as it prevents the phenomenon of carbonation, the main culprit in the deterioration of cementitious structures. It meets the requirements in standard 1504-2 for coatings: penetration protection product 1.3, moisture control 2.2., chemical resistance 6.1, increased resistivity 8.2.

#### PRODUCT FEATURES

- Excellent adhesion to steel or concrete substrates
- Elastic waterproof consistency resistant to marine fauna and flora
- Resistant to weathering, atmospheric chemicals and aging
- Ease of application
- Applicable from +8°C
- Working temperature from -25°C to +45°C (in water)

### MEMBRAPOL 7000 SIL

Prodotto formulato a base di resine terpolimere silossaniche idrodiluibili, con forte azione protettiva consolidante ravvivante antiadesiva di facile pulizia e lavabilità. La sua specifica struttura molecolare rende il prodotto impermeabile e resistente, utilizzabile anche per superfici carrabili in gomma. MEMBRAPOL 7000 SIL polimerizzato crea una pellicola di piacevole aspetto opaco o lucido.

#### PRODUCT FEATURES

- Prodotto trasparente
- Impermeabile e resistente
- Prodotto asciutto si presenta compatto, opaco
- Raccomandato per la pietra sia naturale che artificiale
- Applicabile a pennello, rullo e spruzzo convenzionale

### MEMBRAPOL 800 S

A primer and finishing product all-in-one formulated with specific polysiloxane resins, solubilized in a solvent mixture capable of promoting penetration into the underlying layers and providing the surface with high water repellency and impermeability to driving rain. MEMBRAPOL 800 S being completely non-film-forming, and uniformly coating macro-porosity, ensures maximum natural breathability of the substrate, reducing its thermal conductivity and retention by absorption of dirt (smog, soot).

#### PRODUCT FEATURES

- Recommended for surfaces like natural stone, tuff, marble, concrete, precast concrete, exposed plaster
- Unifies and aesthetically enhances the natural appearance of surfaces
- Does not alter the appearance of the substrate
- Strong water-repellent and consolidating action
- Applicable by brush, roller and conventional spray

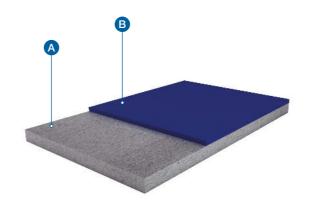
# UNDERWATER WORKS



Membrapol offers products for underwater works and maintenance of harbor docks, flow channels, pipelines. The products are designed to offer corrosion protection on steel or concrete structures. Structures can be submerged or installed on the shoreline, in contact with fresh or salty water. Membrapol products are also used as sealants, to stop any water leaks in canals, pipelines and basins.

### MEMBRAPOL SUB

Epoxy waterproofing - thixotropic epoxy formulation for underwater repairs and coatings. Cures even under water offering excellent adhesion to steel or concrete substrates.



A - ConcreteB - MEMBRAPOL SUB

#### Waterproofing Solutions

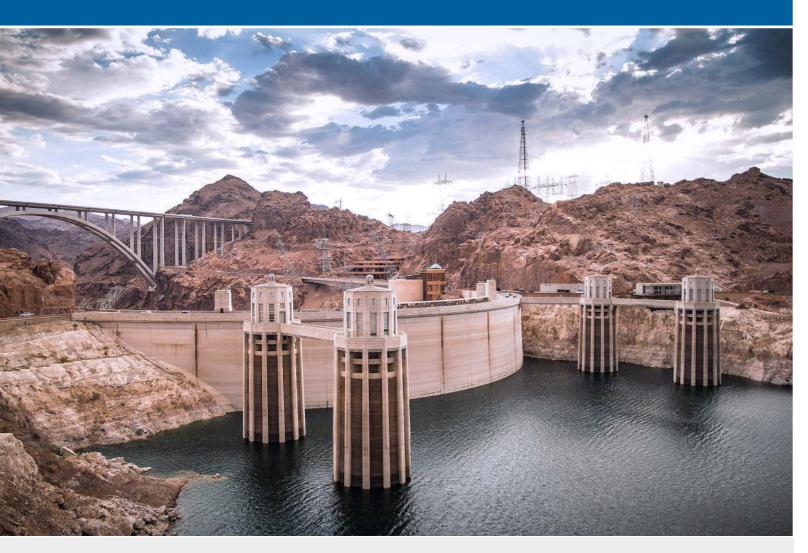


### MEMBRAPOL SUB

Two-component, high-thixotropy epoxy product for hand or trowel application underwater. It is used in the anticorrosive protection of submerged steel or concrete substrates or shoreline in fresh or salt water. Suitable for maintenance of harbor docks, culverts, pipelines and bridges, it is also used as a sealant to stop water leaks in canals, pipelines and basins; it meets the requirements in 1504-2 standard for coatings: penetration hazard protection product 1.3, moisture control 2.2., chemical resistance 6.1, resistivity enhancement 8.2.

- Adequate consistency for underwater repairs
- Excellent adhesion to steel or concrete substrates
- Elastic waterproof consistency resistant to fauna and marine vegetation
- High mechanical strength
- High chemical resistance
- High physical resistance
- Ease of application
- Applicable from +5°C to +40°C
- Working temperature from -25°C to +45°C (in water)

# DAMS AND CANALS WATERPROOFING



Membrapol provides a range of waterproofing solutions for dams and irrigation canals. Proper waterproofing is crucial in the construction of these hydraulic structures to prevent water infiltration, which could compromise their stability and safety.

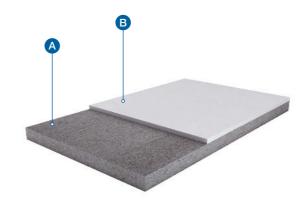
### MEMBRAPOL 140 OS

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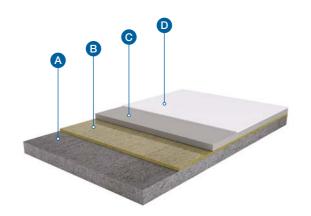
Osmotic waterproofing agent based on special hydraulic binders - cement waterproofing mortar for concrete or masonry surfaces in contact with even aggressive water.

### MEMBRAPOL 600 VK

Pure polyurea waterproofing agent allows surfaces to be made resistant to wear, weathering and vehicular traffic.



A - ConcreteB - MEMBRAPOL 140 OS



A - Concrete
B - Primer
C - MEMBRAPOL 600 VK
D - Finitura

#### Waterproofing Solutions



### MEMBRAPOL 140 OS

Osmotic cementitious waterproofing agent for treating concrete or masonry surfaces in contact with even aggressive water. Can be applied in two coats, manually or by machine, in total thickness from 1 to 2 mm; meets the requirements in 1504-2 standard for coatings: moisture control product 2.2, physical resistance 5.1, chemical resistance 6.1, resistivity increase 8.2.

#### **PRODUCT FEATURES**

- Continuous, waterproof, tough and slightly flexible layer
- Resistant to continuous immersion in water
- Ability to apply thicknesses up to 2 mm per layer
- Resistant up to 5 ATM in negative water pressure
- Excellent ability to saturate surface imperfections

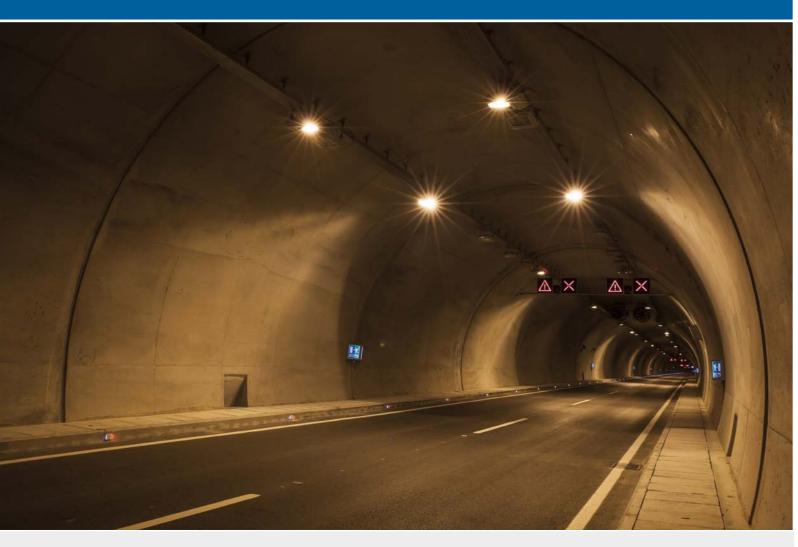
### MEMBRAPOL 600 VK

Waterproofing system based on pure polyurea for a quick-curing waterproofing with high chemical, physical and mechanical resistance. Can be applied exclusively by hot airless Bi-mixer. Very high speed of hardening with fast achievement of final mechanical performance

#### **PRODUCT FEATURES**

- 100% dry residue
- Can also be applied vertically and to the ceiling
- Impermeable to water and excellent resistance to aggressive chemicals
- Applicable from -10°C to +40°C (substrate temperature)
- Dew-point  $> 5^{\circ}$ C (in the absence of condensation)
- Working temperature from -35°C to +85°C
- Shore D >45
- Elasticity >350%
- Tear resistance > 12 KN/m

# VIADUCTS AND TUNNELS WATERPROOFING



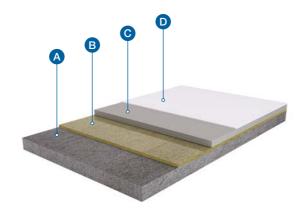
Membrapol possesses extensive expertise in waterproofing viaducts and tunnels, utilizing cutting-edge products that ensure long-term durability. Indeed, for such infrastructure projects, it is crucial to apply resinous and cementitious coatings of the highest quality to guarantee impeccable waterproofing.

### MEMBRAPOL 600 VK

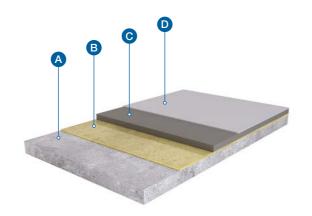
Pure polyurea waterproofing-allows the construction of roofing that is resistant to wear, weathering and pedestrian and driveway traffic.

### MEMBRAPOL 560

Pure polyurea waterproofing agent allows surfaces to be made resistant to wear, weathering and vehicular traffic.



A - Calcestruzzo
B - Primer
C - MEMBRAPOL 600 VK
D - Finitura



A - Supporto

B - Primer

C - MEMBRAPOL 560

D - Finitura

#### Waterproofing Solutions



### MEMBRAPOL 600 VK

Waterproofing system based on pure polyurea for a quick-curing waterproofing with high chemical, physical and mechanical resistance. Can be applied exclusively by hot airless Bi-mixer. Very high speed of hardening with achievement of final mechanical performance

#### **PRODUCT FEATURES**

- 100% dry residue
- Can also be applied vertically and to the ceiling
- Impermeable to water and excellent resistance to aggressive chemicals
- Applicable from -10°C to +40°C (substrate temperature)
- Dew-point  $> 5^{\circ}$ C (in the absence of condensation)
- Working temperature from -35°C to +85°C
- Shore D >45
- Elasticity >350%
- Tear resistance > 12 KN/m

### MEMBRAPOL 560

High-performance two-component polyurea waterproofing agent applicable in the fluid and cold state, based on isocyanate prepolymers and mixture of special modified polyamines, free from plasticizers,

#### **PRODUCT FEATURES**

- Rapid curing and achievement of final strength characteristics (pot life 7-8 minutes)
- High elasticity, toughness, puncture resistance, abrasion and wear with ability to bridge cracks
- Insensitive to moisture
- Shore A 65  $\pm$  5
- Elasticity 500%

# WALLS AND FOUNDATIONS WATERPROOFING



Structural elements in contact with the soil, such as retaing walls, on-ground slabs and foundations, are subject to infiltration and diffusion of moisture. Membrapol offers products designed to guarantee a suitable waterproofing and durability even under negative pressure. Membrapol meticulously designs specific waterproofing solutions, ensuring no detail is overlooked, as the longevity of the coating should match that of the structure. Restoration in these cases is not always a feasible option.

### MEMBRAPOL 600 EB/TIX

Epoxy-bituminous waterproofing - thick layer, protective and anticorrosive coating. It is used for the protection of concrete and metal structures, with a at medium to thick aterprofing layer. Particularly suitable those structures subject to water aggression.

### MEMBRAPOL 140 OS

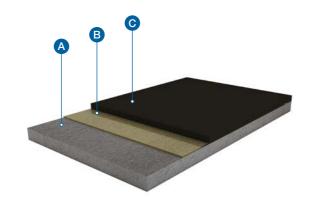
Osmotic waterproofing agent based on special hydraulic binders. It is a cement-based waterproofing mortar for concrete or masonry surfaces in contact with even aggressive water.

### MEMBRAPOL CEM 100 P

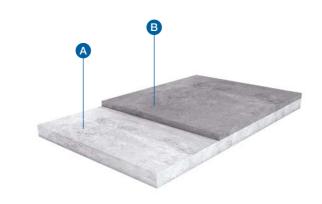
Waterproofing agent based on special hydraulic binders - excellent cement waterproofing mortar that can be applied by roller.



A - ConcreteB - MEMBRAPOL 140 OS



A - Concrete B - Primer C - MEMBRAPOL 600 EB/TIX



A - Concrete or TilesB - MEMBRAPOL CEM 100 P

#### Waterproofing Solutions



### MEMBRAPOL 140 OS

Osmotic cementitious waterproofing agent for treating concrete or masonry surfaces in contact with even aggressive water. Can be applied in two coats, manually or by machine, in total thickness from 1 to 2 mm; meets the requirements in 1504-2 standard for coatings: moisture control product 2.2, physical resistance 5.1, chemical resistance 6.1, resistivity increase 8.2.

#### **PRODUCT FEATURES**

- Continuous, waterproof, tough and slightly flexible layer
- Resistant to continuous immersion in water
- Ability to apply thicknesses up to 2 mm per layer
- Resistant up to 5 ATM in negative water pressure
- Excellent ability to saturate surface imperfections

### MEMBRAPOL 600 EB/TIX

Two-component, low-solvent epoxy resin-based product modified with elastic epoxy-polyamide resins and non-toxic bitumen. The product's thixotropy allows high layer thicknesses to be applied even vertically.

It is excellent when used as a barrier to prevent rising dampness and for industrial waterproofing.

#### PRODUCT FEATURES

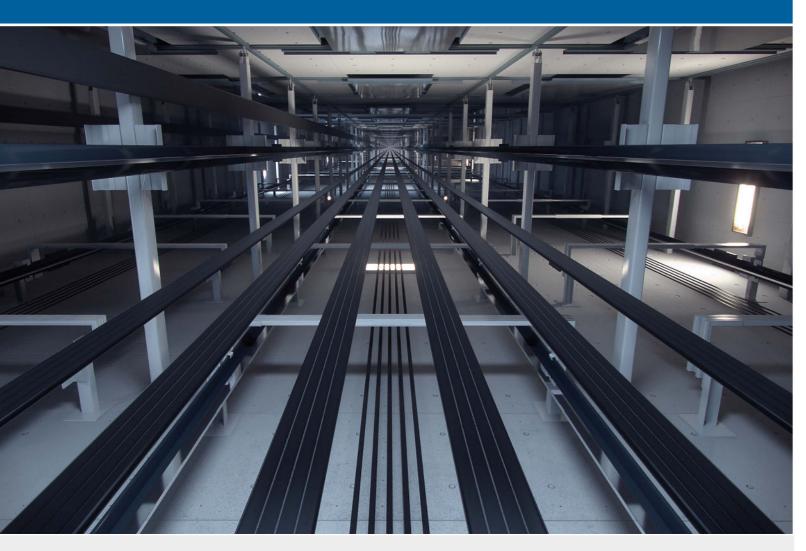
- High protective and anticorrosive power
- Solvent and petroleum tar-free product
- High mechanical strength
- High resistance to acid, alkali and solvent vapors or splashes
- High resistance to fresh and salt water

### MEMBRAPOL CEM 100 P

Roller-applicable, two-component, high-elasticity cementitious waterproofing agent suitable for waterproofing concrete or masonry surfaces, ceramic floors, plasters and cementitious screeds; meets the requirements in standard 1504-2 for coatings: moisture control product 2.2, physical resistance 5.1, chemical resistance 6.1, resistivity increase 8.2.

- Continuous, waterproof, tough and flexible layer, withstands microcracking of the substrate (crack-bridging)
- High adhesion, breathability, waterproofness and high flexibility.
- Excellent ability to saturate surface imperfections
- High water vapor permeability and good carbon dioxide impermeability

# ELEVATOR WELLS WATERPROOFING



To waterproof elevator shafts, Membrapol has developed products with excellent chemical-physical-mechanical performance and resistant to water contact in both negative and positive pressure.

### MEMBRAPOL 140 OS

Osmotic waterproofing agent based on special hydraulic binders-cementitious waterproofing mortar for concrete or masonry surfaces in contact with even aggressive water.

### MEMBRAPOL CEM 100 P

Waterproofing agent based on special hydraulic binders - excellent cement waterproofing mortar easily applicable by roller.

### MEMBRAPOL PRIMER 900 MALTA

Epoxy-cement waterproof mortar - structurally adheres to concrete, brick and stone materials, even when wet.



A - Concrete **B** - MEMBRAPOL 140 OS



A - Concrete B - MEMBRAPOL CEM 100 P



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A - Calcestruzzo **B** - MEMBRAPOL PRIMER 900 MALTA

#### Waterproofing Solutions



### MEMBRAPOL 140 OS

Osmotic cementitious waterproofing agent for treating concrete or masonry surfaces in contact with even aggressive water. Can be applied in two coats, manually or by machine, in total thickness from 1 to 2 mm; meets the requirements in 1504-2 standard for coatings: moisture control product 2.2, physical resistance 5.1, chemical resistance 6.1, resistivity increase 8.2.

#### **PRODUCT FEATURES**

- Continuous, waterproof, tough and slightly flexible layer
- Resistant to continuous immersion in water
- Ability to apply thicknesses up to 2 mm per layer
- Resistant up to 5 ATM in negative water pressure
- Excellent ability to saturate surface imperfections

### MEMBRAPOL CEM 100 P

Roller-applicable, two-component, high-elasticity cementitious waterproofing agent suitable for waterproofing concrete or masonry surfaces, ceramic floors, plasters and cementitious screeds; meets the requirements in standard 1504-2 for coatings: moisture control product 2.2, physical resistance 5.1, chemical resistance 6.1, resistivity increase 8.2.

#### PRODUCT FEATURES

- Continuous, waterproof, tough and flexible layer, withstands microcracking of the substrate (crack-bridging)
- High adhesion, breathability, waterproofness and high flexibility.
- Excellent ability to saturate surface imperfections
- High water vapor permeability and good carbon dioxide impermeability

### MEMBRAPOL PRIMER 900 MORTAR

Waterproof mortar based on epoxy resins in water dispersion, hydraulic binders and selected silica aggregates. It adheres structurally to concrete, brick and stone materials even when wet.

- Allows for thicknesses from 2 mm to 5 mm in one or two applications
- Withstands water back pressures up to 7 ATM even treated by aggressive solutions. Applicable from  $+5^{\circ}$ C to  $+45^{\circ}$ C with R.H. of air <90% on the substrate
- Operating temperature -35°C to +105°C (in air) +65°C in water
- Rapid curing at temperatures near 20°C allows multiple daily overlays

# CERTIFICAZIONI



The various certifications obtained by Membrapol products have been issued by DIBT Berlin, according to European technical regulations ETA and according to CE mark and certification. Among the proposed waterproofing systems, Membrapol 250 has MPA Braunscheig technical suitability certification according to European Union directives for waterproofing exposed roofs with liquid application, in accordance with ETAG 005.

Membrapol products in the line dedicated to the restoration, protection and treatment of the corrosion of concrete structures meet requirements of the UNI EN 1504 standard, which defines the procedures and characteristics of products to be used for the repair, maintenance and protection of concrete structures.

















# REFERENCES

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#### Some of our esteemed clients and of the most important executed works

#### Ministero delle Infrastrutture e dei Trasporti:

- Caserma Guardia Costiera di Messina (ME)
- Caserma Guardia Costiera di Marsala (TP)
- Capitaneria di Porto di Trapani (TP)
- Capitaneria di Porto AMS di Messina (ME)
- Reparto supporto Navale Guardia Costiera di Messina (ME)
- Istituto Maggiore Guida di Partinico (PA)
- Scuola Elementare Rocco Chinnici di Misilmeri (PA)
- Istituto Luchino Visconti di Ciminna (Pa)
- Caserma Guardia di Finanza di Pantelleria (TP)
- Caserma Guardia di Finanza di Castelvetrano (TP)
- Comando Carabinieri di Gela (CL)
- Caserma Carabinieri di Misilmeri (PA)
- Questura di Trapani (TP)
- Caserma Provinciale dei Carabinieri di Belluno (BL)
- Caserma dei Carabinieri di Villafrati (PA) Caserma Guardia di Finanza di Trapani
- Caserma Carabinieri di Marsala (TP)
- Caserma Carabinieri di Montevago (AG)
- Caserma Carabinieri di Partinico (PA) - Caserma della Guardia di Finanza (CZ)
- Commissariato Polizia di Stato "San Lorenzo" di Palermo
- Questura di Siracusa
- Caserma Carabinieri di Marineo (PA)
- Viadotti Ferroviari di Catania
- Viadotti Ferroviari della Calabria
- Caserma dei Carabinieri di Rosarno (RC)
- Caserma della Guardia di Finanza di Villa San Giovanni (RC)
- Caserma dei Vigili Urbani di Villa San Giovanni (RC)
- Caserma dei Carabinieri di Villa San Giovanni (RC)

#### Ministero della Difesa:

- Aereonautica Militare Base Aerea di Sigonella (CT)
- Reggimento di Fanteria Caserma Sammaruga (CT)
- Arsenale della Marina Militare di Brindisi (BR)
- Ospedale Militare di Messina (ME)
- Base Logistica Addestrativa Ortigia (SR)
- Stazione elicotteri Marina Militare "Maristaeli" di Sigonella (CT)
- Carcere di Caltagirone (CT)
- Carcere Catania Piazza Lanza (CT)
- Reparto a Cavallo di Polizia di Stato a Palermo (PA)

#### Ministero dell' interno:

- Hot Spot Centro "Milo Alloggi per Stranieri" di prima accoglienza per stranieri (TP)
- Dipartimento Vigili del Fuoco di Piazza Armerina (EN)
- Caserma Vigili del Fuoco di Galati Mamertino (ME)
- Palazzo delle Dogane (TP)
- Centro Polifunzionale della Polizia di Stato di Palermo (PA)

#### Ministero della Giustizia:

- Tribunale di Palermo (PA)
- Tribunale di Catania (PA) - Tribunale di Gela (PA)
- Tribunale di Agrigento (AG)
- Casa Circondariale "Pagliarelli" (PA) - Casa Circondariale "Bicocca" (CT)
- Casa di Beclusione di Gela (CL)
- Tribunale "Aula Bunker" di Caltanissetta
- Casa Circondariale Catania Piazza Lanza Carcere di Catania (CT) - Casa Circondariale Carcere di Taranto (TA)
- Casa Circondariale Carcere di Caltagirone (CT)
- Casa Circondariale Carcere di Ragusa (RG)

#### Ospedali:

- Azienda Ospedaliera Papardo (ME)
- Ospedale San Cimino (ME)
- Azienda Ospedaliera Villa Sofia Cervello (PA)
- Azienda Ospedaliera Villa Sofia (PA)
- Presidio Ospedaliero Occidentale di Castellaneta (TA)
- Ospedale Nord Moscati di Taranto (TA)
- Ospedale M. Giannuzzi di Manduria (TA)
- Vecchio Ospedale di Cefalù (PA)
- Ospedale dei Bambini di Palermo (PA)
- Policlinico di Catania
- Ospedale Civico di Palermo
- Ospedale di Avola (SR)
- Ospedale di Noto (SR)
- Ospedale di Lentini (SR)
- Ospedale EX Mandalari di Messina
- Ospedale "S. Antonio" di Trapani

#### Provincia di Palermo:

- Istituto Tecnico per il Turismo "Marco Polo" di Palermo
- Direzione Didattica Statale "Capitano Emanuele Basile" di Palermo
- Direzione Didattica Statale "Gaetano Costa" di Palermo
- Istituto Paritario "Campus Lincoln" di Palermo
- Istituto Tecnico Geometri e Turismo "M. Rutelli" di Palermo
- Liceo classico "Vittorio Emanuele II" di Palermo
- Liceo Scientifico "Ernesto Basile" di Palermo
- Istituto Tecnico Commerciale "Duca Degli Abruzzi"
- Scuola Materna Statale "Monti Iblei"
- Liceo Scientifico Statale "Ugo Mursia" di Carini
- Istituto superiore "Danilo Dolci" di Balestrate
- Istituto Tecnico Commerciale e per Geometri "Carlo Alberto Dalla Chiesa" di Partinico
- Istituto Professionale per L'Industria e L'Artigianato "Salvo D'Acquisto" di Bagheria
- Istituto Comprensivo Statale "Ignazio Buttitta" di Bagheria
- Istituto Comprensivo di Ficarazzi
- Istituto Comprensivo "IC Pollina" di San Mauro di Castelverde
- Istituto Tecnico Commerciale "Palmeri" di Ciminna
- Liceo Classico "Ugdulena" di Termini Imerese
- Liceo Scientifico "Palmeri" di Termini Imerese

- Impianto di Depurazione Acqua dei Corsari

- Scuola Materna - Villaciambra di Monreale

- Velodromo Paolo Borsellino di Palermo

- RFI - Stazione Notarbartolo di Palermo

- Scuola Elementare "G. Bonanno" di Misilmeri

- Istituto Comprensivo Statale di Camporeale

- Asilo Comunale di Villafrati

- Asilo Nido Aquilone di Palermo

- Scuola "Civello" di Bagheria

- I.I.S.S. "E. Ascione" di Palermo

Provincia di Agrigento:

- AMAP

- Istituto Tecnico Commerciale di Marineo - Istituto Tecnico Economico Vilfredo Pareto di Palermo

- Istituto Comprensivo "Francesca Morvillo" di Monreale

- Istituto Comprensivo Statale "Colozza – Bonfiglio" di Palermo

- Istituto Comprensivo Statale "Karol Wojtyla" di Santa Flavia

- Plesso Scolastico "Maria Immacolata" di Montelepre

- Istituto Comprensivo Statale "San'Agostino" di Naro

- Palestra Distrettuale di Piazzale la Malfa di Agrigento

- Scuola Elementare Statale "Francesca Morvillo" di Santa Flavia



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#### Altre Forniture:

Provincia di Caltanissetta:

- Istituto Valdesi di Riesi

Istituto Alberghiero di Enna

- Nuovo Aeroporto di Comiso

- Consorzio di Bonifica Nr. 8 di Ragusa

- Circolo Didattico 'G.Albo' di Modica

- Stabilimento "la Vita Bio" di Ragusa

- Asilo Nido Comunale "Sappusi" di Marsala

- Asilo Nido Comunale "Amabilina" di Marsala

- Istituto Comprensivo "Nino Navarra" di Alcamo

- Scuola Primaria "Giovanni Paolo II" nel Comune di Grottaglie

- Scuola Materna "Campitelli" nel Comune di Grottaglie

- Scuola Materna "Don Bosco" nel Comune di Grottaglie

- Scuola Materna "Collodi" nel Comune di Grottaglie

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Provincia di Enna:

Provincia di Ragusa:

Provincia di Trapani:

Provincia di Brindisi:

Provincia di Taranto:

- Università del Salento

- Cittadella della Ricerca di Mesagne

- Cabine Elettriche del Salento

Provincia di Reggio Calabria:

- Santuario di Sant'Antonio

- Centro Carabinieri Cinofili

- Liceo Scientifico "A. Volta"

- Supermercati Conad

Provincia di Cosenza:

Spadafora Bibite

Provincia di Nuoro:

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- Sede Provincia di Reggio Calabria

- Ospedali riuniti Melacrino Morelli

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- RFI - Stazione di Selinunte

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- Istituto Professionale per L'Industria e L'Artigianato " R. Pasqualino Vasallo" di Riesi

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- A.N.A.S. S.p.a.
- Autostrada Palermo-Messina
- Autostrada Catania-Siracusa
- S.T. Microelettronics S.p.a. di Catania
- Deposito LIPS di Carini (Pa)
- Italcementi S.p.a. di Capaci (Pa)
- Poste Italiane S.p.a.
- Expo 2016
- Cantine Vini Corvo S.p.a.
- Duca di Salaparuta S.p.a.
- Ministero dello Sviluppo Economico
- Terna S.p.a.
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- Stabilimento "Hitachi" di Reggio Calabria (RC)
- Stabilimento Finmeccanica "Selex" di Palermo (PA)
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- Centro Commerciale Levante di Bagheria (PA)
- Centro Commerciale La Fortezza di Modica (RG)
- Centro Commerciale II Giardino di Avola (SR)
- Acquedotto Consortile Biviere di Monreale (PA)
- Centrali Terna S.p.a.
- Uffici Terna di Roma
- Cabine Enel S.p.a.
- Gazzetta del Sud S.p.a. di Messina
- Elisicilia srl
- SPER S.p.a.- Centrale a biomassa di generazione di energia di Dittaino (EN)
- Palazzetto dello Sport "PalaCatania" di Catania
- Palazzetto dello Sport "Piscine di Nesima" di Catania
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- Oleificio Barbera Di Palermo
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- Aeroporto di Palermo

# NOTES

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