

# Guard Polyurea Pro

**MoVeX**

## DESCRIPTION

**Guard Polyurea Pro** is a TWO-COMPONENT, aromatic coating.

It's formed from two high reactive liquid components isocyanates and resins, mixed using specific spray equipment, and it's suitable for waterproofing, protection, and sealing.



## USES

For roofing, waterproofing, and protection of:

- Roofs, balconies, terraces, and overhangs (walkable)
- Car Park
- Structural concrete slabs, and concrete walls and foundations
- Bridge deck
- Tanks and irrigation canals
- Metal and asbestos roofs
- Green roof and walls
- Power plants, recycling, water-waste plants, water treatment, and petrochemical plants

**NOTE:** call our technical department about the application to other supports or situations

## TYPICAL PROPERTIES

Recommended minimum thickness	± 1.5 mm
Tack-free time	±5 secs
Application method	Spray equipment
Elongation at break	> 350%
Hardness Shore A	>93
Tensile strength	20 MPa
VOC (volatile organic compounds)	0

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## COLOR

	White
	Gray
	Black
	Red

\*The 60 kg kit format is only available in gray.

## GENERAL FEATURES

- **Guard Polyurea Pro** is a very strong solid membrane, flexible and hard-wearing product that, once applied, offers great stability, durability and waterproof.
- The versatility and tack-free time of around 5 seconds are making it the ideal product for application on uneven surfaces and in areas of any shape, whether curved or squared.
- **Guard Polyurea Pro** system properties enable to bond to any surface, such as metal, concrete, cement, plywood, polyurethane foam, bituminous sheets/asphalt, etc.
- Free from harmful VOC compounds (VOC's zero). **Guard Polyurea Pro** 100% recyclable, so it's friendly to the environment; no gas collection for recycling and/or destruction is required; it doesn't emit substance to the environment once installed.
- **Guard Polyurea Pro** must be applied in dry conditions to avoid the presence of humidity from the surface or substrate to be coated.
- Applying **Guard Polyurea Pro** uniform finish and forms a single layer, providing a surface with optimal care and cleaning properties.
- It can be walked on, and it will accept a rough finish to make it non-slip.
- If the application of Guard Polyurea Pro on the roof area, the System requires sun radiation protection (UV rays) to keep its physical and mechanical properties because it is an aromatic membrane.
- **Guard Polyurea Pro** can contact fuels, fertilizers, animal excrements or urine.

## YIELD

Recommended consumption is approximately 1.7 kg /m<sup>2</sup> (at 1.5 mm dry film thickness). This data could vary depending on the type of application, weather conditions, or substrates' nature.

## PACKAGING

Metal drums of 60 kg and 225 kg (each component; B side: amines and A side: isocyanates).

## SHELF LIFE

12 months at temperatures between 5°C and 35°C, provided it is stored in a dry place. Once the tin has been opened, the product must be used immediately. Once opening drum, B side must be agitated mechanically before inserting the transfer pumps and use.

## APPLICATION METHOD

In general, you should take the following factors:

- Surface reparation (remove old existing waterproofing paints and fill the cracks).
- Clean up the surface, removing any dust, oils and grasses, dirt, and existing chippings.
- Remove any silicone-based products.
- Support will be strong and dry.
- The surface has to be enough compressive strength of adhesion of the membrane.

You can apply **Guard Polyurea Pro** liquid waterproofing membrane over several supports and materials.

Below we set out some of the application for the most common surfaces.

### Concrete substrate:

- The concrete should be completely cured (concrete curing takes 28 days).
- Any cracks, voids, and damaged areas must be repaired.
- Existing joints or seals remove the old material.
- Use some acid-etched to open the pores for primer acceptance on old concrete.
- Next one, clean up well and eliminate all contaminants from the elements, such as dust or chippings.
- Apply the primer in the conditions and the parameters indicated in the technical specifications for these products.
- Then apply **Guard Polyurea Pro** pure polyurea coating.

### Metal substrate:

- Metal surfaces should be prepared using sand-blasting, in order to improve the surface's mechanical fixation properties. In many cases the application of corrosion inhibiting products will be required.
- For a quick and efficient cleaning of the surface using a ketone-based solvent.
- Apply prior priming using a water-based epoxy type primer.

### Ceramic substrate:

- The surfaces should not have any empty joints and it must be filled.
- For quick and efficient cleaning of the surface use pressurized water to complete evaporation.

- Apply the required primer.
- Apply the **Guard Polyurea Pro** pure polyurea coating.
- Application of the aliphatic polyurethane resin, in consumption and desired thicknesses in the case of no protection against UV rays.

## **Sheets substrate:**

- Before application, rolled roofing must be in good condition.
- Should be cleaned with water to complete evaporation.
- Remove and replace some sections if necessary.
- Apply the required primer.
- Apply the **Guard Polyurea Pro** pure polyurea coating.
- Application of the aliphatic polyurethane resin, in consumption and desired thicknesses in the case of no protection against UV rays.

## **REPAIR AND OVERLAPS PROCESSES**

### **Repair:**

- Damaged area must be removed/cut.
- For overlapping security, sand the area extending about 20~30 cm.
- Cleaning/vacuuming of waste generated.
- Apply a thin layer (100-150 g/m<sup>2</sup>) of polyurethane resin.
- Light spread SILICA SAND over the wet primer applied before.
- Wait until it totally dry.
- Apply **Guard Polyurea Pro**.

### **Overlaps:**

- Sanding strip longitudinal overlap of about 20~30 cm. wide
- Cleaning/vacuuming of waste generated.
- Apply a thin layer (100-150 g/ m<sup>2</sup>) of polyurethane resin.
- Light spread SILICA SAND over the wet primer applied before.
- Wait until it totally dry.
- Apply **Guard Polyurea Pro**.

## APPLICATION REQUIREMENTS (SPRAY EQUIPMENT)

For the formation, it is necessary to mix the two initial liquid components, isocyanates and amines. The general parameters for this material will be the following:

- Heater isocyanate temperature: 70-75 °C
- Heater amines temperature: 70-75°C
- Hose temperature: ± 70 °C
- Working pressure: 2.500 - 3.000 psi

These parameters for adjusting the projection equipment are approximate and may change depending on the weather conditions of the environment at the moment to apply, therefore, it is the responsibility of the applicator in each case the option to choose.

## HANDLING

These safety recommendations for handling, are necessary for the implementation process as well as in the pre and post, on exposure to the loading machinery.

- Respiratory Protection: When handling or spraying use an air-purifying respirator.
- Skin protection: Use rubber gloves, remove immediately after contamination. Wear clean body-covering. Wash thoroughly with soap and water after work and before eating, drinking or smoking.
- Eye / Face: Wear safety goggles to prevent splashing and exposure to particles in air.
- Waste: Waste generation should be avoided or minimized. Incinerate under controlled conditions in accordance with local laws and national regulations.
- Vapor and atomized liquids are harmful.
- Keep out of reach of children.
- Do not use near high heat or open flame.