

# IMPERMAX

## SINGLE COMPONENT LIQUID WATERPROOFING MEMBRANE BASED ON POLYURETHANE

### PRODUCT OVERVIEW:

**Impermax** is a new liquid waterproofing material, which after polymerisation forms an elastomeric Polyurethane membrane, resisting UV rays and capable of handling severe building movements and deformations.



It may be applied very easily on different surfaces (concrete, mortar, brick, ceramics, bituminous membranes, steel, zinc, aluminium), providing a continuous membrane which resists outdoors exposure, and has excellent adhesion.

Compared to traditional liquid waterproofing membranes, it offers the following advantages:

- Water resistant. It may be in contact with water permanently (does not emulsify). This product is also certified to be in contact with drinking water for human consumption according to European Directive 98/83/CE.
- Fast curing (even in situations of low temperatures and high relative humidity specially using PUR CAT ADITIVE).
- Allows for pedestrian transit directly onto the product, without a need for special protection.
- Impermax** does not require any internal reinforcement based on nets or non wovens (geotextile), even though this may be convenient in very exposed spots.
- Its shiny – non-thermoplastic finish avoids dust adherence and membrane softening in hot periods.



The product may be applied using conventional systems (rolls, brush and airless systems). It does not require special blends (it is a single component product).

### APPLICATIONS:

- Balconies, terraces.
- Baths (showers), kitchens and difficult access spots.
- Flooring with pedestrian traffic.
- Stairs, stadiums, tribunus.
- Water channels and reservoirs.



### ADVANTAGES:

- Excellent adhesion on most kinds of surfaces.
- Resistant to movements and fissures in substrates.
- Resistant to impact and abrasion.
- Excellent resistance to water and to micro-organisms.
- Resistant to temperature variations. IMPERMAX membrane keeps its characteristics in temperatures between – 50 °C and + 100 °C.
- Impermax is 100% waterproof, but allows for vapour diffusion through it.
- Great resistance to chemical agents (cleaning products, etc.).

### APPLICATION GUIDELINES :

Product must be applied in quantities ranging 1.5 up to 2 kg/m<sup>2</sup>, resulting in a membrane thickness of 1.4 to 1.9 mm.

Ideally, it must be applied in 2 separate coats, best in different colours (assuring enough quantity is applied in each layer).

It is important to mix the product well before its application with an electric mixer, at low rpm (avoiding that too much air enters the resin). It is also necessary to let the product rest for a few minutes so that air bubbles disappear.



It is possible to add up to 10% of solvents (see Rayston Solvent data sheet), in order to reduce the viscosity of the product.

Product may be applied under cold / humid weather. In case of rain just before the product cures, this would not interfere with the quality of the membrane, even though rain drops may leave marks on the surface, which may require a final coat to make it even.

In case of very low temperatures or if it is important to have a very short cure time, it is recommended to use Rayston's PUR CAT (see Technical Data Sheet).

Product dilution and materials cleansing is made with solvent. It is better to use solvents recommended by Krypton Chemical.

## IMPERMAX



### CONDITIONING:

- Drums of 6, 10 and 25 Kg.
- Colours: dark Red, Gray, clear Red, White and Aluminium.
- Product shelf life: 1 year after date of production.

### PRODUCT CHARACTERISTICS:

Solid content (in Xylene)	90 %
Viscosity, at 20 °C	500 mPa s
Flash point (Closed cup)	37 °C
Hours between coats	4
Service Temperature	-50 t0 +90 °C
Hardness Shore A	70
Tensile strength Kp/cm2	127
Elongation %	421

### SUMMARY OF PROPERTIES:

Allows heavy pedestrian traffic.  
 Totally stable to "basic" elements (such as concrete).  
 High resistance to outdoors and to UV rays.  
 Non slip.  
 Resistant to impacts.  
 Elastic.  
 Anti-dust.  
 STABLE in water even in permanent contact.  
 Product certified under 98/83/CE Directive for products in contact with Human consumption (Drinking) water.  
 Can be applied at low temperatures / high relative humidity environments.

### CHEMICAL RESISTANCE:

Agent	Conditions	IMPERMAX
Distilled water	24 h, 25°C	ok
	24 h, 90°C	ok
Sea water	24 h, 25°C	ok
	24 h, 90°C	ok
HCl	6 M, 24 h, 25°C	a
	6 M, 2 h, 80°C	a
	0,1 M, 24 h, 25°C	ok
	0,1 M, 24 h, 80°C	a
NaOH	1 M, 24 h, 25°C	ok
MeK	24 h, 25°C	c
Ethyl Acetate	24 h, 25°C	b
Xylene	25 h, 25°C	ok
Engine oil	24 h, 25°C	ok
Brakes fluid	25 h, 25°C	b/c

ok= No changes  
 a= Small damage. Some bubbles in surface or easy to peel.  
 b= Moderate damage. Easy to peel. Bubbles and / or softening.  
 c= Severe damage. Very easy peeling of the resin from substrate. Important softening.

### HEALTH AND SAFETY:

It is important to observe usual precautions with flammable products.  
 Please refer to the material safety data sheet for more information.



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