



# POLYKRON PU

## One-component liquid polyurethane based waterproofing coating



### **ADVANTAGES**

- Easy to apply by brush, roller or airless spray.
- Long-lasting waterproofing and protection.
- Highly resistant to stagnant water. Does not peel off.
- Forms a seamless membrane with no joints with high adhesion to the substrate, avoiding lateral water migration in case of damage, allowing easy local repairs.
- Excellent resistance to rain water, frost, UV rays.
- Excellent crack-bridging and elastic properties even at very low temperature (-40° C).
- Excellent thermal resistance. The membrane does not turn soft or tacky at high temperatures (+80 °C).
- No primer needed on most common substrates. Special primers are however available, when necessary.
- Water vapour permeable. Does not cause moisture accumulation on the ceiling.
- Good resistance to chemicals and detergents.
- High reflection of solar reflectance (only in white colour) and significant reduction of the temperature inside the building during summer.
- Does not release any dangerous substances once fully cured.

### **APPLICATION FIELDS**

Waterproofs and protects:

- Flat roofs, basements, tanks, balconies, terraces, flowerbeds, cut and cover tunnels, irrigation channels.



## ***SURFACE PREPARATION***

- Ensure that loose parts, crumbling or non-sticky parts, paint, rust, dust and release agents are removed. Carefully clean the surfaces, which must be solid, even and dry.
- Do not wash the substrate prior the application of the coating
- **Make sure that concrete surfaces moisture is lower than 5%.**
- Joints and cracks should be sealed with **KRONSEAL PU**.

## ***APPLICATION***

- **POLYKRON PU** can be applied without use of a primer, by roll, brush or air-less spray, in 2-3 layers. On concrete surfaces it is however recommended **PRIMERKRON PU** in order to improve the adhesion of **POLYKRON PU**.
- On concrete substrates containing more than 5% humidity or non absorbent surfaces like metal or ceramic tiles, it is advised the application of **EPOXYKRON AB**, the Krongum epoxy water-based primer, which will work as vapour barrier.
- To improve mechanical features of **POLYKRON PU** especially on big areas and details (corners, pipes, etc.), apply wet-on-wet between the first and following layers, the 70 gr/m<sup>2</sup> non-woven polyester reinforcement **TEXKRON**.
- Time interval between each coat is 3 hours at least and no longer than 48 hours. When primer is applied, the first coat of **POLYKRON PU** can be applied not earlier than 1 hour and not later than 24 hours from the application of the primer.
- If a final non-slippery surface is needed, apply a quartz dust cover on the last layer of **POLYKRON PU**, when still fresh.
- For application at low temperature or with high humidity and for bubble-free application of **POLYKRON PU** in thick coats, it is recommended to add up to 5% of **POLYKRON HARDENER** in order to speed up the curing process.
- In cases of exposure of the coating to direct U.V. light, it is suggested to cover the material with **KRONFLEX-AR** (aliphatic polyurethane topcoat) with an application rate of 200 – 400 gr/m<sup>2</sup>.
- After use, clean the tools with polyurethane thinner when the product is still fresh. When hardened the product can be removed just mechanically.

## ***CONSUMPTION***

A minimum consumption of 1,1-1,3 Lt/m<sup>2</sup> (1,5 – 1,8 kg/m<sup>2</sup>) is recommended. However, the consumption depends on the porosity of the substrate. Do not apply **POLYKRON PU** more than 0,7 – 0,8 kg per coat as this could lead to bubble entrapment inside the coat. The product must be fully used once opened. However, if used partially, the remaining part in the bucket forms a superficial hardened layer which, if removed, allows further use of the fresh part below.



## TECHNICAL CHARACTERISTICS

Dynamic viscosity (23 °C, shear rate 100 [1/s])	EN 3219	2000-3000 mPa.s
Density (21 °C)	EN 2811-1	1.45 gr/cm <sup>3</sup>
Temperature variations resistance		-40 to 90 °C
Maximum short term temperature (15 min - 20min)		220 °C
Surface membrane formation time (23 °C, 50% R.H.)		4 hours
Elongation at break point	DIN 53504	780%
Curing time according to climate conditions		12 – 24 hours
Tensile at 100% elongation		1,95 N/mm <sup>2</sup>
Tensile strength	DIN 53504	4,1 N/mm <sup>2</sup>
Hardness SHORE A	DIN 53504	81
Water Vapour permeability (23 °C-0/75% R.H.)	DIN 1931	13,1 gr/m <sup>2</sup> /day
Impermeability to water (1m water column, 24h)	EN 1928	Watertight
Adhesion on concrete (with primer)		> 2 N/mm <sup>2</sup>
Accelerated Weathering Test, UV & water exposure, EOTA TR-010, Radiant exposure 400 MJ/m <sup>2</sup> , 2400 hours		Passed, No significant changes
Resistance against thermal ageing, EOTA TR-011, 100 days at 80 °C		Passed, No significant changes
Fatigue resistance, EOTA TR-008, -10 °C, initial crack : 1 mm, change in crack width : 1 mm, Number of cycles : 500		No cracks

## COLORS

- White – Grey (RAL 7035 and 7040)

## PACKAGING AND STORAGE

- 1, 6, 25 Kg metal buckets
- Shelf life: 12 months in sealed packaging stored in dry and cool places