

BETTOSEAL PU - B 2K

Polyurethane - Bitumen Based, Two Component, Liquid
Waterproofing Membrane

MATERIAL DESCRIPTION

BETTOSEAL PU - B 2K is a bitumen enriched; polyurethane based, two component, fast curing, elastic, cold applied, elastic liquid membrane for waterproofing and protection purposes. It adheres strongly to many surfaces and forms a highly elastic film layer.

AREAS OF USE

- In subsoil foundation and curtain concretes,
- In terrace insulation above the parking lot,
- Bridge platforms,
- Cut-and-cover tunnels,
- Retaining walls.
- Used on surfaces such as EPDM-Bituminous membranes and asphalt.

TECHNICAL SPECIFICATIONS

BETTOSEAL PU - B 2K	
Material Structure	2 Component Bitumen -
Appearance	A: liquid. B: Liquid
Viscosity	Polyurethane resin 3000 cp
Density Mixing	0.97± 0.05 gr/cm ³ 20°C
Ratio Ignition	1:1 (A:B - by
Point	>40 °C
Mixture Life (+25°C)	volume) 20-30
Drying Time	1-2 hours
Waiting Service	minutes
Temperature	-40 to 80 °C
Between Floors	6-24 hours
Short-Term Maximum	40
Shock Shore A Hardness	150 °C
Elongation at Break	20kg/cm ² (2 N/mm ²)
Tensile Strength Thermal	>1000
Resistance	
QUV: AV/UVB lamps at 60 °C	1000 hours have passed
for 4 hours and humidity	
treatment at 50 °C for 4 hours	
Chemical Resistance:	
Sodium hypochlorite 5% 10	
days Hydrolysis Resistance:	Not affected
Potassium	
Hydroxide 8% Water	
Absorption 10 days at 50 °C	% <0,9

ADVANTAGES

- Fast curing.
- Can be applied in thick coats, does not form bubbles.
- After opening the package, the unmixed components can be stored for later use.
- Its crack bridging properties are excellent due to its low modulus.
- Exhibits effective resistance to chemicals.
- It adheres perfectly to any surface, primed or unprimed.
- Although it does not need to be thinned, it can be thinned with polyurethane thinner according to the conditions.
- Its thermal resistance is excellent, the product never softens.
- Maximum use temperature is 80°C, maximum shock temperature is 200°C.
- Resistant to cold, the film retains its elasticity up to -40 °C.
- Excellent mechanical properties.
- It has high elongation, tensile, tear and abrasion resistance.
- Plant root resistance.
- It functions effectively as a water vapor barrier.
- It can also be applied as joint filling material.
- The 1/1 volume of the components facilitates the mixing process.



SURFACE PREPARATION

The concrete to be treated with **BETTOSEAL PU - B 2K** must be at least 28 days old and the surface moisture content of the concrete to be treated must be 4-6%. All loose particles, oil and paint residues, cement grout must be removed. Problematic surfaces on the concrete must be repaired beforehand. The residues, roughnesses and shiny screed on the concrete surface should be cleaned with tools such as sandblasting, machine, diamond drum wiping machine etc. and the surface should be roughened and wiped. The entire surface should be cleaned of dust with an industrial vacuum cleaner. The surface should never be washed with water.

Primer options according to surface conditions:

For moist substrates: **BETTOPRIME PU 2K**

High porosity substrates: **BETTOPRIME PU 1K**

Non-porous substrates such as glassy, glazed tiles: **BETTO TILE PRIMER**

PRIMER

Asphalt pavements **BETTOPRIME PU 2K**

Steel, galvanized steel, aluminum: **BETTOPRIME PU 2K**

Re-coat (after 3,4 days) in applications: **BETTOPRIME PU 2K**

Note: It is recommended to thin **BETTOPRIME PU 2K** with 5-10% polyurethane thinner before applying to non-porous concrete substrates.

MIXING

BETTOSEAL PU - B 2K is supplied in ready-to-use sets according to the mixing ratio. Before the mixing starts, material temperatures should be Make sure it is between +15 - +25°C. **BETTOSEAL PU - B 2K**, component A contains pigment. The epoxy/polyurethane resin should be thoroughly mixed with a 300 - 400 rpm mechanical mixer fitted with a mixing tip for 4-5 minutes without air entrainment until a homogeneous color is obtained. Then all of the B component should be poured into the A component and make sure that there is no material left in the B components. A and B components should be used after mixing until homogenous (at least 4-5 minutes).

APPLICATION METHOD

After mixing **BETTOSEAL PU - B 2K** as recommended above, it should be poured onto the primed surface and spread with a roller, brush or toothed trowel until the entire surface is covered. After 12-24 hours (do not wait more than 48-78 hours at the latest), another coat of **BETTOSEAL PU - B 2K** should be applied. If desired, a third coat of **BETTOSEAL PU - B 2K** can be applied after the waiting time has elapsed. If **BETTOSEAL PU - B 2K** is to be covered with ceramic tiles, saturate with baked, dry silica sand (size 0,4- 0,8mm) while the last coat of waterproofing material is wet. The silica sand will form an adhesion bridge over the waterproofing. For best results, the temperature during application and curing should be between +8°C - +35°C. Low temperatures delay curing, while high temperatures accelerate it. High humidity may affect setting.

PACKAGING

Component A 20 kg Component B: 20 kg Set

MIXING RATIOS

BETTOSEAL PU - B 2Component A
Component Mix Quantity: 20 kg 20
kg Mix Density: 1.00 kg/liter

MATTERS TO BE CONSIDERED

- Relative humidity of air up to 80%, in practice, ambient and surface temperature It should be between +8°C and +35°C. In addition, application should not be made in extremely hot, rainy or windy weather.
- The ground temperature should be 3°C above the current dew point (ambient temperature, ambient humidity, dew point temperature table from our company).
- For applications to be carried out at appropriate temperatures, the materials to be used should be brought to the application area 1 - 2 days in advance, stored and adapted to the ambient conditions.
- In applications to be carried out in extremely cold weather, the ambient and floor temperature should be increased with the help of heaters, and the packages should be conditioned at +20 - +25°C to increase the workability of the material and made ready for use. Epoxy and polyurethane based floor systems should be applied by specialized applicators.
- The working and reaction times of resin-based systems are affected by the ambient and ground temperature and the relative humidity in the air. At low temperatures, the chemical reaction slows down, which prolongs the use time, coating time and working time. At the same time, consumption increases as viscosity increases. High temperatures increase the chemical reaction and the times mentioned above are shortened accordingly. After the coating is completed, the air temperature should not drop below +8°C for at least 36-48 hours, and there should be no direct water contact or snow on the newly applied product. If there is water contact, this will cause carbonation and softening of the coating, which will cause the coating to lose its properties.

Types of surfaces that can achieve successful results:

Concrete, fibre cement, mosaic, cement-based roof tiles, old but well adhered acrylic and asphalt coatings, wood, corroded metal and galvanized steel surfaces.

Concrete substrate standards:

Hardness: R28 = 15Mpa.

Humidity: W < 10%.

Temperature: 5-35 °C.

Relative humidity < %85.

EXPENDITURE

It is applied with a consumption of 1.2 - 1.5 kg / m² for two coat application.

CLEANING OF INSTRUMENTS

Tools and equipment used after application can be cleaned with cellulosic or polyurethane thinner.

SHELF LIFE

1 year from the date of manufacture under appropriate storage conditions.



BETTON
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