Neodur® PB 1K

One-component, bitumen-modified polyurethane elastomeric waterproofing coating

Description

One-component, bitumen-modified polyurethane elastomeric coating, suitable for long-lasting waterproofing of non-exposed surfaces



Packing

23kg

Colour

RAL 9005

Fields of application

- Non-exposed surfaces, with requirement of resistance to ponding water
- Under tiles in wet rooms
- Building foundations, basements, planter boxes
- Terraces and roofs, under thermal insulation boards

The surfaces require appropriate preparation and priming prior to the application of ***Neodur® PB 1K****.*

Properties - Advantages

- Exceptionally high elasticity and crack-bridging properties
- Excellent adhesion on various substrates
- High resistance to ponding water and abrasion
- Retains its elasticity even in very low temperatures (down to -40°C)
- Easy to apply (one-component – cures with the ambient humidity)
- High chemical resistance
- Fast-drying

Technical characteristics

Density (EN ISO 2811-1)	1,28kg/L (±0,05)
Elongation at break (ASTM D412)	850% (±20)
Adhesion strength (EN 1542)	>2N/mm²
Hardness Shore A (ASTM D2240)	28
Service temperature	-40°C min. / +80°C max.
Consumption: 1,4-1,7kg/m² for two layers (cementitious surface)	

Application conditions

Substrate moisture content	<4%
Relative air humidity (RH)	<85%
Application temperature (ambient - substrate)	+8°C min. / +35°C max.

Curing details

Dry on the surface (+23°C)	~ 30 minutes
Drying time	12 - 24 hours (depending on the conditions)
Dry to recoat	1 - 48 hours (depending on the conditions)
** Low temperatures and low humidity during application and/or curing prolong the above times, while high temperatures and high humidity reduce them*	

Appropriate primers on usual substrates

Substrate	**Primer**	**Description - Details**
Concrete, cement screed	**Neodur® Primer 1K**	One-component, fast-drying polyurethane primers
	Neotex® PU Primer	
	Acqua Primer NP	Two-component, water-based epoxy primer

Instructions for use

Substrate preparation

The surface must be stable, clean, dry, protected from rising moisture and free of dust, oil, grease and loose materials. Any poorly adhering materials and older coatings should be removed, and the surface should be thoroughly cleaned mechanically or chemically. Depending on the substrate, appropriate mechanical preparation may be required, to smooth the irregularities, open the pores and create the optimum conditions for adhesion. The surfaces should have the appropriate slopes and they should be sufficiently flat, smooth, and continuous (i.e., without holes, cracks, bays, etc.). In the opposite case, they should be treated accordingly (e.g. by proper puttying).

Priming

Prior to the application of **Neodur® PB 1K**, the proper **NEOTEX®** primer should be applied, depending on the substrate. In the case of cementitious substrates, it is proposed to apply one of the polyurethane primers **Neodur® Primer 1K** or **Neotex® PU Primer** or the water-based epoxy primer **Acqua Primer NP.**

Application

Following the priming of the surface, **Neodur® PB 1K** is applied undiluted, in two or more layers, by brush, roller or airless spray, after thorough stirring with a low-speed electric stirrer. The drying time of each layer may be heavily affected by the prevailing ambient conditions (temperature and humidity). Depending on the conditions, every subsequent layer of **Neodur® PB 1K** is applied in 1 to 48 hours, undiluted, by brush, roller or airless spray.

Along the intersections of vertical and horizontal elements (as well as in all other corners), in construction details (such as around and inside roof drains), along the joints, as well as when covering cracks, it is advisable that **Neodur® PB 1K** is locally applied in advance, reinforced with the specially designed non-woven polyester fabric **Neotextile® NP** of 100gr/m^2 weight ("wet-on-wet" application of two layers with the fabric positioned in between).

In cases of projects with higher demand in terms of mechanical resistance and crack bridging, it is recommended that **Neodur® PB 1K** is thoroughly reinforced with the non-woven polyester fabric **Neotextile® NP** in the whole application surface.

Special notes

- **Neodur® PB 1K** should not be applied under wet conditions, or if wet conditions or rainy weather are expected to prevail during the application or the curing period of the product
- Substrate temperature during application and curing must be at least 3°C above dew point to avoid condensation issues
- The durability of the waterproofing system is enhanced by the increase of the total dry film thickness, which may be achieved through the application of an additional layer or layers.
- The consumption of each unreinforced layer of **Neodur® PB 1K** should not exceed 1kg/m^2, to avoid the creation of craters and bubbles in the material's mass
- In cases of application under tiles, it is recommended to broadcast quartz sand during the application of the final layer of the product, while it is still fresh, in order to enhance the adhesion of the subsequent layer of the tile adhesive. After the hardening of **Neodur® PB 1K**, any loose grains should be removed with a high suction vacuum cleaner. It is advisable to use an elastic tile adhesive (indicative proposed type C2TE S1).
- Especially in case of application on roofs and for the release any trapped water vapours from the substrate, it is recommended to apply air vents in the whole surface per 20-25m^2
- **Neodur® PB 1K** should not remain exposed to solar radiation

Appearance	Viscous liquid
Colours	Black RAL 9005
Packing	23kg in metal cans
Cleaning of tools – Stains removal	By **Neotex® PU 0413** immediately after application. In case of hardened stains, by mechanical means
Volatile organic compounds (V.O.C.)	V.O.C. limit acc. to the E.U. Directive 2004/42/CE for this product of category AiSB: 500g/l (Limit 1.1.2010) - V.O.C. content of the ready-to-use product <500g/l
UFI code	A8J0-0006-F00M-TPW2
Storage stability	12 months, stored in its original sealed packing, protected from frost, humidity and exposure to sunlight

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