



PC-Sealcoat® PUR HV

Two-component , 100% solid, flexible hybrid polyurea system

PC-Sealcoat® PUR HV is a fast-curing, aromatic, and flexible two-component polyurea coating system renowned for its rapid setting properties. Formulated through the reaction of an isocyanate prepolymer with an amine-terminated resin blend, this system guarantees impeccable purity. Designed as a protective barrier for various surfaces including concrete, metal, wood, ceramic, geotextile, and PU foam substrates, it delivers seamless waterproofing coupled with outstanding durability. Noteworthy for its elevated resistance to moisture and temperature variations, this coating can be applied under challenging environmental conditions. Application necessitates the use of high-pressure, heated plural-component spray equipment. PC-Sealcoat® PUR HV complies with the stringent requirements outlined in EN 1504-2 for concrete surface protection systems.

FEATURES

- Swift responsiveness and minimal service downtime.
- Uniform coating application for a seamless finish.
- Composed of 100% solids, free from VOCs and solvents.
- Environmentally sustainable formulation.
- Minimal odor emission.
- Exceptional thermal resistance.
- Impressive chemical resistance.
- High tolerance to impacts and abrasions.
- Demonstrates outstanding tensile and structural strength.
- Exceptional water resistance.
- Superior adhesion on various surfaces like concrete, steel, aluminum, plastics, fibers, wood, and foam.
- Notable flexibility.
- Excellent crack-bridging capabilities.
- Ideal for precise and intricate applications.
- Resistant to fluctuating temperatures and moisture levels.
- Superior corrosion protection.
- UV, chlorine, and saltwater resistant.
- Capable of achieving significant thickness during application.
- Wide range of color options for customization.

PRODUCTS PROPERTIES

Physical Properties	Typical Value
Form	A: MDI Prepolymer B: Amine Resin
Colour	White/Grey
VOC content (%) ASTM D1259	0
Solid content (%) ASTM D2697	100
Gel time (sec)	5-10
Tack free time (sec)	15-25
Recoat time (hr)	0-12 (without pretreatment)
Density (gr/cm3) ASTM D792	0,99-1,03
Tensile strength (MPa) ASTM D638	≥ 18

USES

- Waterproofing a variety of structures such as storage tanks, pools, ponds, pipelines, wastewater treatment facilities, manholes, sewer linings, roofs, and terrace coatings.
- Providing flooring solutions for industrial settings, manufacturing plants, warehouses, hospitals, factories, parking lots, and garages.
- Engaging in construction projects encompassing roads, bridge decks, railways, high-speed railways, tunnels, airports, and line striping.
- Offering applications within the marine industry.
- Delivering services to the oil and gas sector, mining operations, secondary containment areas, the energy industry, and chemical processing facilities.
- Catering to the recreational sector with services for water parks, aquarium linings, playgrounds, and decorative applications.

SURFACE PREPARATION

Surface preparation plays a pivotal role in determining the efficacy of coatings. When working with concrete substrates, it is imperative to mechanically prepare them via abrasive blast cleaning to eradicate cement latitude and establish a textured surface. Any compromised concrete should be removed, and imperfections such as voids must be exposed.

Essential repairs, void filling, and surface leveling should be executed using appropriate products. Prior to coating application, ensure thorough removal of all dust and loose materials from surfaces, ideally employing a brush and/or vacuum. The surface's pull-off strength for coating application should be a minimum of 1.5 N/mm², with concrete residual moisture not exceeding 4% pbw (in the case of a moisture-tolerant primer, a maximum moisture level of 6% pbw is permissible). Moisture levels should be gauged using a moisture meter.

To avert condensation, ascertain that the substrate temperature remains at least 3 °C above the dew point. The relative air humidity during application should not exceed 85%. Before applying any coatings, confirm the substrate's moisture content, relative air humidity, and dew point.

PRIMING

For optimal surface smoothness and robust adhesion, priming the application surface is imperative. A light application of 0.3-0.8 mm quartz sand is recommended to improve adhesion and extend the drying period of the primer before the polyurea coating is applied. To prevent the formation of blisters, it is essential to refrain from excessive sand broadcasting.



Modulus (MPa) ASTM D638	%100 elongation ≥ 10 %300 elongation ≥ 15
Elongation at break (%) ASTM D638	≥ 350
Hardness (Shore D) ASTM D2240	40-45
Hardness (Shore A) ASTM D2240	90-95
Tear strength (N/mm ²) ASTM D 624	≥ 50
Taber abrasion (mg) EN ISO 5470-1	≤ 30 (H22, 1000 cycle)
Impact resistance EN ISO 6272-1	Class III
Pull off strength (N/mm ²) ASTM D 4541	Concrete: $\geq 2,5$ Steel: ≥ 6

SHELF LIFE & STORAGE CONDITIONS

PC-Sealcoat® PUR HV components exhibit sensitivity to moisture. It is imperative to store them in securely sealed containers to preserve their quality. Before application, it is essential to adequately blend the amine resin. Storage of **PC-Sealcoat® PUR HV** components should be within the temperature spectrum of 20 to 30°C. The unopened original packaging has a shelf life of nine months from the date of manufacture.

SAFETY

Contains isocyanate MDI. Avoid breathing vapors. Avoid contact with skin and eyes. Take precautions during application. Wear suitable protective clothing, gloves and eye/ face protection. Adequate ventilation of the working area is recommended. Refer to the SDS sheet prior to use.

APPLICATION

The **PC-Sealcoat® PUR HV** application process necessitates prompt action, ideally within 12-24 hours following the application of the primer, utilizing a two-component high-pressure and heat spray apparatus. The Isocyanate prepolymer and amine resin should be administered in a 1:1 volume ratio, both maintained at temperatures exceeding 70 °C. It is imperative to uphold consistent temperature and pressure levels throughout the application while ensuring regular monitoring to optimize performance. Avoid any form of dilution to the **PC-Sealcoat® PUR HV** system components. Prior to application, diligently blend the amine component using a barrel mixer for a minimum of 30 minutes until a homogenous mixture with a uniform color is achieved. Though aromatic **PC-Sealcoat® PUR HV** coating systems provide UV stability, exposure to sunlight may induce color alterations without affecting functionality. To preserve color consistency, promptly apply an aliphatic top coat within 12 hours following the base coat application.

CONSUMPTION OF COATING COMPONENTS:

Primer: 0,3-0,5 kg/m²

Quartz sand: 1-1,5 kg /m²

Polyurea coating: 1,05- 1,1 kg/m²/mm (recommended film thickness is minimum 2 mm.)

PACKAGING

200 kg barrel (Amine side)

225 kg barrel (Iso side)



PC-WC GLOBAL FZ-LLC

Compass Building, Al Shohada Road Al-Hamra industrial Zone-FZ,
Ras Al- Khaimah, UAE
Email : info@pc-wc.com
Phone +971542455817 , www.pc-wc.com

TECHNICAL DATA SHEET UPDATED IN
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TDS/PC-SEALCOAT® PUR HV/20



All technical data in this Product Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

The information, particularly the recommendations relating to the application and end-use of PC-WC products, are given in good faith based on PC-WC's current knowledge and experience of the products when properly stored, handled and applied under normal conditions by PC-WC recommendations. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or any other advice offered. The user must test the product's suitability for the intended application and purpose. PC-WC Global FZ-LLC reserves the right to change the properties of its products. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Our technical assistance is at the disposal of the users. Consult the latest update of the technical data sheet on our website www.pc-wc.com