

PUR coating

PCI Apoten® PU

for industrial floors subject to
mechanical and chemical loads

PCI[®]
Für Bau-Profis



Fields of application

- For indoor and outdoor use.
- For producing wear-resistant and chemical-resistant coatings in all industrial areas.
- Crack-bridging, self-levelling coating on cementitious substrates and mastic asphalt.
- PCI Apoten PU can be mixed with silica sand, mixing ratio up to 1 : 0.3.



Wear-resistant and chemical-resistant coating for the interior produced with PCI Apoten PU.

Features and benefits

- Highly wear resistant to mechanical loads from medium to heavy.
- Self levelling, highly efficient.
- Reliable bond to suitable substrates, therefore high final strength.
- Solvent free, no damage to environment and operative due to solvent vapours, no danger of fire or explosion.
- Silicone free and emission reduced.
- Resistant to chemicals such as acids, alkalis, oil and grease (see table „Chemical Resistance”).

A brand of

BASF

We create chemistry

Technical data

Material

Material base	polyurethane liquid resin, solvent free
Components	two components
Density	
- base component	approx. 1.54 g/cm ³
- hardener component	approx. 1.25 g/cm ³
Consistency	
- base component	fluid
- hardener component	fluid
Colour	
- base component	coloured
- hardener component	brown, transparent
Temperature resistance	-20°C to +40°C (short-term up to +60°C)
Shelf life	min. 12 months
Storage	store in a dry place, no permanent storage over +30°C
Packaging size	30 kg unit (24.6 kg hobcock base component + 5.4 kg pail hardener component)

Application

Layer thickness	
- unblended	approx. 1.5 to 4mm
- blended with silica sand 1 : 0.3	approx. 1.5 to 4mm
Consumption	
- unblended	approx. 1.45 kg PCI Apoten PU/m ² and mm layer thickness
- blended with silica sand 1 : 0.3	approx. 1.25 kg PCI Apoten PU/m ² and mm layer thickness
Working temperature	+5°C to +30°C
Relative humidity during application	min. 40% - max. 85%
Mixing ratio	
- base component	82 parts by weight
- hardener component	18 parts by weight
Mixing time	approx. 3 minutes
Slake time	none
Density of mixture (unblended)	approx. 1.45 g/cm ³
Consistency	fluid
Working time*	approx. 30 minutes
Waiting time until next application	as soon as walkable
Curing time*	
- walkable after	approx. 24 hours
- top sealing can be applied after	approx. 24 hours
- able to bear weight after	approx. 7 days
- can be exposed to water after	approx. 7 days

* At +23°C and 50% relative humidity. Higher temperatures reduce, lower temperatures increase the times given.

Colours

Colours	stock no.
similar to RAL 7032 Pebble grey	0830/0
similar to RAL 7030 Stone grey*	0831/7
similar to RAL 7035 Light grey*	0832/4
similar to RAL 7038 Achate grey*	0833/1
similar to RAL 1015 Ivory*	0834/8

*delivery time 3 weeks

Subject to variations in colour due to print.



7032 Pebble grey



7030 Stone grey



7035 Light grey



7038 Achate grey



1015 Ivory

Chemical resistance

	Concentration (weight %)	Resistance		Concentration (weight %)	Resistance
Inorganic acid			Regular petrol		±
Chromic acid	20	±	Supergrade petrol		±
Phosphoric acid	20	+	Jet fuel		-
Nitric acid*	10	+	Ethanol		±
Hydrochloric acid*	20	+	Methanol		±
			Toluene		-
Organic acid			Trichlorethylene		-
Formic acid	2	+			
Acetic acid	5	+	Oil		
Lactic acid	10	+	Cutting oil		+
Citric acid	10	+	Diesel oil		+
			Fuel oil		+
Alkali			Machine oil		+
Ammonia	25	±	Hydraulic oil		+
Solvent			Others		
Acetone		-	Fruit juice		+

Legend:

+ = resistant after a test period of 500 hours at +23°C, ± = short-term resistant, - = non resistant, * = staining

Preparation of substrate

■ The substrate for subsequent coatings must be clean, dry, able to bear weight, free of grease, old paint and other residues. Remove heavy contamination mechanically, residues of oil and wax with PCI Entöler oil remover. The average pull-off strength must not fall below 1.5 N/mm² (lowest single value 1.0 N/mm²). The surface

must be prepared by sandblasting or shotblasting (Blastrac). Smooth rough, uneven substrates by scrapefilling to ensure a closed, even layer thickness of the coating. Mastic asphalt screeds must be well prepared that approx. 2/3 of the aggregates contained in the mastic asphalt are exposed. Pull-off strength

min. 0.8 N/m². Do not use if substrate has rising dampness. Measure the moisture level of the concrete with a CM meter if necessary. The substrate may only be coated if the residual moisture content falls below 4%. Close spalled areas in the substrate with PCI Bauharz, cracks with PCI Apogel.

Priming

1 PCI Epoxigrund 390 PCI Epoxigrund Rapid

Add entire hardener component to the base component and intensively mix for approx. 3 minutes using a suitable paddle (e.g. from Collomix) attached to a slow-speed electric drill (approx. 400 rpm). **Mixed material must be transferred to another bucket.** Scrape out remaining material from edges and bottom of the original container, add to

the mixture and re-mix. Pour mixed PCI Epoxigrund 390/Rapid onto the substrate section by section and spread using a float or brush. Use a roller or brush for the application on walls. Blended with silica sand 0.1 to 0.4 mm, mixing ratio 1 : 1, PCI Epoxigrund 390/Rapid can be applied as a scrape filler to rough, uneven surfaces (consumption approx. 600 g/m² at a peak-to-valley height of 1 mm). Apply

PCI Epoxigrund 390/Rapid within approx. 50 minutes after mixing.

2 The new primer/scrape filler is to be loosely scattered with silica sand, grain size 0.3 to 0.8 mm (approx. 500 g/m²). Sweep off excessive sand the next day.

3 A primer coat with PCI Apoten PU (instead of an epoxy primer) is applied to mastic asphalt.

Application procedure of PCI Apoten PU

1 Mixing

PCI Apoten PU is available in the appropriate mixing ratio.

As a coating (unblended)

Add entire hardener to the base component and intensively mix for at least 3 minutes until a uniform colour is produced using a suitable paddle attached to a slow-speed, infinitely adjustable electric drill (approx. 400 rpm). **Mixed material must be transferred to another bucket.** Scrape out remaining material from edges and bottom of the original bucket, add to the mixture and re-mix.

Self-levelling coating blended with silica sand

Add kiln-dried silica sand (grain size 0.1 to 0.4 mm) to the mixed PCI Apoten PU, ratio by weight of 1 : 0.3 to 1 : 1 and mix using a suitable paddle attached to a slow-speed, infinitely adjustable electric drill (approx. 400 rpm).

2 Coating

Pour PCI Apoten PU onto the substrate and spread using a notched trowel (control of layer thickness) or roller. A spiked roller is then applied across the coating. In the case of vertical or sloped surfaces, add approx. 3% of floating agent to the coating blended with silica

sand, approx. 1% of floating agent to the unblended coating. The newly applied PCI Apoten PU coating can be given a decorative finish by spreading coloured chips onto the coating.

3 Anti-slip coating

Apply a layer of unblended PCI Apoten PU on top of the cured PCI Apoten PU coating within 3 days. Sprinkle the uncured top layer with silica sand, grain size 0.3 to 0.8 mm, until the coating is fully covered. Allow the coating to cure, sweep off excessive sand and apply another coat of unblended PCI Apoten PU using a roller.

4 Apply mixed PCI Apoten PU within approx. 35 minutes (at +23°C).

Please note

- Staining (yellowing) might be expected when applying PCI Apoten PU to areas exposed to UV rays, however there is no effect on the mechanical properties.
- Do not apply PCI Apoten PU at substrate temperatures below +5°C and above +30°C.
- Mix only as much PCI Apoten PU as can be applied within the given working time.
- Please consult the PCI technical help-line when applying PCI Apoten PU to mastic asphalt.
- Suitable tools are available from e.g. Collomix GmbH, Horchstraße 2, 85080 Gaimersheim/Germany, www.collomix.de.
- Clean tools with PCI Univerdüner universal thinner immediately after use. When the product has cured it can only be removed by mechanical scraping. It is insufficient to simply immerse the tools in PCI Univerdüner!
- Shelf life: min. 12 months; store in a dry place, no permanent storage over +30°C.
- Exposure to direct sunlight might cause changes in colour.

Information on the safe use

For professional/industrial use only

Hardener component

Contains:

methylenediphenyldiisocyanate, isomers, homologues

Causes serious eye irritation. Causes skin irritation. Harmful if inhaled. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction. May cause damage to organs through prolonged or repeated exposure. May cause respiratory irritation. Suspected of causing cancer. Avoid breathing

vapours or mist. Wear protective gloves/clothing and eye/face protection. Use only outdoors or in a well-ventilated area. In case of inadequate ventilation wear respiratory protection. Contaminated work clothing should not be allowed out of the workplace. IF ON SKIN (or hair): Wash with plenty of soap and water. IF SKIN IRRITATION OCCURS: Get medical advice/attention. Take off contaminated clothing and wash it before reuse. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if

present and easy to do. Continue rinsing. IF EYE IRRITATION PERSISTS: Call a POISON CENTER or doctor. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor. Store in a well-ventilated place. Keep container tightly closed. Store locked up. Dispose of contents/container to hazardous or special waste collection point. GISCODE PU 40

For further information: see PCI Material Safety Data Sheet.



PCI Augsburg GmbH

Piccardstr. 11
86159 Augsburg
P.O.B. 10 22 47
86012 Augsburg
Germany
Tel. +49 (821) 59 01-0
Fax +49 (821) 59 01-390
www.pci-augsburg.de



zertifiziertes Qualitätsmanagementssystem

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