PRODUCT DATA SHEET

PU-BETON 4050

Version, Penetron Romania

3-COMPONENT PU-BETON AS SYSTEM COMPONENT FOR PU-BETON COATINGS

DESCRIPTION

PU-BETON 4050 is a solvent-free, 3-component system base coat for high-quality PU-BETON coatings. In combination with PU-BETON 4009 and PU-BETON 4006 highly durable flooring can be achieved for areas exposed to hot-water and chemicals. The material cures by chemically cross-linking, comparable to the PU-BETON coatings, to a robust, well adhesive base for subsequent coatings. Absorbency is reduced and by pore sealing the surface may be coated. Depending on the temperature subsequent coatings may be applied within 6 - 12 hours, but not longer than 48 hours. Due to the adjusted system PU-BETON materials offer short processing times requiring a well-organized time-table. Within the system the coatings are physiologically harmless after curing. They offer good resistance to many chemicals, especially to aqueous salt solutions, acids and bases, as well as to many different solvents.

RECOMMENDED FOR

- As system base coat for mortar coatings based on KLB-SYSTEM PU-BETON 4006, PU-BETON 4009, PU-BETON 4011 Grip, as well as for skirtings and covings with PU-BETON 4012.
- Especially for wet areas with increased demands to the resistance to temperature and chemicals, like e.g. dairy farms, butcheries, breweries, and other areas in the food processing industry.

ADVANTAGES

- Ready-to-use adjustment
- Good adhesion
- Solvent-free
- Convenient to work with
- Resistant to water and chemicals
- PU-BETON system component

TECHNICAL CHARACTERISTICS

Characteristic	Test Result	Test Method
Density (Components A+B+C)	1.3 kg/lt	EN ISO 2811-2 at 68 ^{o}F (20 ^{o}C)
Color	Natural	
Solid content	>98%	KLB - Method
Weight loss	< 1.0 % after 28 days	
Shore hardness D	76	DIN 53505 (after 7 days)
Processing time at 59 ^{o}F (15 ^{o}C)	15 minutes	
Processing time at 68 ^{o}F (20 ^{o}C)	10 minutes	
Processing time at 77 ^{o}F (25 ^{o}C)	8 minutes	
Processing temperature	Minimum 59 ^{o}F (15 ^{o}C) – Maximum 25 ^{o}F (77 ^{o}C) room and floor temperature	
Curing time at 50 ^{o}F (10 ^{o}C)	10-12 hrs (Accessibility)	
Curing time at 68 ^{o}F (20 ^{o}C)	6-10 hrs (Accessibility)	
Curing time at 77 ^{o}F (25 ^{o}C))	6-8 hrs (Accessibility)	
Curing	1-2 days for mechanical load at 68 ^{o}F (20 ^{o}C) 2 days for chemical resistance at 68 °F (20 ^{o}C)	
Further coatings	After curing, but not longer than 48 hours at 68 ^{o}F (20 ^{o}C)	

PENETRON® ADVANCED WATERPROOFING & PROTECTION SYSTEMS

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The aforementioned results are related to average laboratory test results. In reality the climate changes, such as temperature, moisture and surface porosity may change these results.

DIRECTIONS FOR USE

Surface Preparation: The surface to be coated has to be levelled, with grip, has to have adequate tensile and compressive strength, has to be clean, free from laitance and dusting parts, as well as any contamination. Materials impairing adhesion, such as e.g. grease, oil, or paint residues must be removed using suitable methods. The substrate must have a sufficiently high strength for the intended use as well as for the coating. Suitable is concrete, minimum quality of C25/30 according to DIN EN 206 cement screed, and polymer-modified cement screeds, CT-C30-F5 at least, bonded, in a layer thickness of 60 and 30 mm respectively, according to DIN 18560 part 3. Screeds as separating layer or insulation, polymer-modified, CT-C40-F5 at least, with a layer thickness > 65 mm, according to DIN 18560 part 4. Other substrate is not, or is generally not suitable. The surface to be coated must be prepared mechanically, preferably by shot-blasting. The surface strength must then be at least 1.5 N/mm². Apply fastening grooves at closing-off edges, passageways, and so on, 6 - 10 mm deep and wide. For concrete, the moisture content must not exceed 6 CM-%. The possibility of moisture ingress from the rear must be permanently excluded. Please refer to the advice issued by the trade associations, e.g. the current edition of BEB-worksheets KH-0/U and KH-0/S, as well as the product information of the recommended KLB-Base Coat PU-BETON 4050 Grundierung. On areas with increased thermal exposure use only PU-BETON 4050. The prepared area has to be primed accurately, saturated, and free of pores. If the substrate hasn't been sealed completely, bubbles and pores may appear due to rising air. Conduct a trial if in doubt.

Mixing: Combi-trading units will be supplied in the correctly measured mixing ratio. Processing and material properties can only be granted when using the provided blend of the 3 components. First of all empty the binding agent components (Components A + B) completely in a clean container and blend with a slow speed mixer (200 - 400 r/pm) thoroughly. Blend for approx. 1 minute for a material that is homogeneous and free of streaks. Blending in Component C should be carried out with a compulsory mixer for a consistent mortar quality. Add the premixed binding agent into the compulsory mixer, then add Component C. Mix for a material that is homogeneous for approx. 3 minutes at 68 °F (20 °C). Lower temperature may increase, higher temperature may decrease the blending times.

Note: Pay attention to consistent blending times. Process complete units only! Inaccurate mixing ratios will lead to useless results. Process the complete mixture immediately.

During mixing the temperature of the components should be between 59 - 68 °F (15 - 20 °C). Blend continuously and thoroughly because of the short-term processing time. Therefore doubling the amount of the material is not recommended.

Mixing ratios:

A:B:C= 100:122:89 parts by weight

Processing/Handling:

Distribute the mortar-mixture in portions on the area evenly right away without any delay and distribute with a foamed rubber slider on the prepared substrate. Afterwards reroll with a velour roller. Watch for an even application and avoid ponding. Divide working areas before starting any coating work and always work "fresh-in-fresh" to avoid any shoulders. The area has to be coated accurately, saturated, and free of pores. If the substrate hasn't been primed free of pores, bubbles and pores may appear due to rising air. Conduct a trial if in doubt. For the use on walls and vertical areas add approx. 2 % of thixotropic agent. Floor and air-temperature must not fall below 59 °F (15 °C) and/or humidity must not exceed 40-85 %. The difference in floor and room temperature must be less than 37.4 °F (3 °C) so the curing will not be disturbed. If a dew- point situation occurs adhesion may malfunction, curing may be disturbed, and spotting may occur. Curing time applies to 68 °F (20 °C). Lower temperature may increase, higher temperature may decrease the curing and processing time. If working conditions are not complied with, deviations in the described technical properties may occur in the end product.

Build-up of Coats:

<u>Coating based on PU-BETON 4006/4009 with slip resistance grade R11/12/13</u>

- Saturated base coat with the system based PU-BETON 4050, consumption 0.4 - 0.5 kg/m².
- Use PU-BETON 4012 for triangular or concave covings. For a side length or radius of 5 cm, consumption of approx. 2.2 - 2.8 kg per running meter. Also suitable for filling larger holes or local separations.
- If necessary: Larger uneven areas may be filled with PU-BETON 4006 and be scattered with fire-dried quartz sand 0.7/1.2 mm.
- Apply the PU-BETON 4006 with a spiked coating knife in layers of 6 mm, respectively PU-BETON 4009 in layers of 9 mm. Vent with a spiked roller.
- Scatter completely with fire-dried quartz sand, grain size 0.3/0.8 mm or 0.7/1.2 mm. After curing sweep off or vacuum until no more sand is released.
- Apply PU-BETON 4080 with a rubber squeegee and roll with a velour roller using criss-cross strokes. Consumption: approx. 0.650 - 0.900 kg/m². Work fast and seamless.

It is mandatory to stay within the recommended consumption for the slip resistance grade.

COVERAGE

Approx. 0.4 – 0.5 kg/m^2.

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SPECIAL CONSIDERATIONS

To remove fresh contamination and to clean tools, use thinner VR 28 or VR 33 immediately. Hardened material can only be removed mechanically.

The product is subject to the hazardous material-, operational safety-, and transport-regulations for hazardous goods. Refer to the DIN-Safety Data Sheet and the information on the labelled containers!

GISCODE: PU 40

Indication of VOC-Content: (EG-Regulation 2004/42), Maximum Permissible Value 140 g/l (2010,II,j/wb): Ready-for-use product contains < 140 g/l VOC.

Contact PENETRON ROMANIA. for additional information, regarding your project.

PACKAGING

PU-BETON 4050 consists of the following components:

Srandard-Unit			
1 Sale-Unit	**PU 4050**	Component A	1.8 kg
1 Sale-Unit	**PU 4050**	Component B	2.2 kg
1 Sale-Unit	**PU 4050**	Component C	1.6 kg
Total quantity			5.6 kg

STORAGE / SHELF LIFE

Store in dry and frost-free conditions. Ideal storage temperature is between 59 - 68 ^{o}F (15 - 20 ^{o}C). Bring to a suitable working temperature before application. Tightly re-seal opened containers and use the content as soon as possible. When properly stored in a dry place in unopened and undamaged original packaging, shelf life is 12 months.

SAFE HANDLING INFORMATION

Avoid skin and eye contact. If contact is made, flush areas with lots of water and seek medical advice. Protective gloves, mask and goggles should be worn. For further information please refer to Safety Data Sheet.. KEEP OUT OF REACH OF CHILDREN.

CERTIFICATION

CE

KLB Kötztal Lacke + Beschichtungen GmbH
Günztalstraße 25
FRG-89335 Ichenhausen
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PU4050-V1-022013
DIN EN 13813:2003-01
Synthetic resin screed mortar
DIN EN 13813: SR-B1.5-AR0.5-IR4
Fire behavior: E_{fl}-s1
Emission of corrosive substances: SR
Wear resistance BCA: AR 0.5
Adhesive tensile strength B 1.5
Impact resistance: IR 4

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