

PUCEM L

DESCRIPTION:

PUCEM L is an aromatic, four-component, solvent-free, pigmented coating based on polyurethane cement. It can be applied as a topcoat for PUCEM TF or as a primer for all the PUCEM systems. Also suitable as a refurbishment layer for aged and deteriorated PUCEM floors.

PUCEM L is renowned for its excellent chemical resistance and mechanical strength, providing a robust, wear-resistant and liquid-tight surface with a smooth finish and long service life. The system offers outstanding resistance to a wide range of aggressive substances such as acids, alkalis, salts, solvents, mineral oils, kerosene, petrol, diesel and brake fluids. In addition, it delivers exceptional thermal shock resistance, enabling it to withstand hot water and extreme temperature variations.

Finally, PUCEM L is characterized by its rapid strength development combined with excellent flow properties, making it both practical and easy to apply.

CONSUMPTION:

System	Product	Consumption
Primer	PU CEM L	~ 500 g/m ²
Wearing Course	PU CEM SL	~ 10 kg/m ²

System	Product	Consumption
Wearing Course	PU CEM TF	4 mm – 7,4 kg/m ²
		6 mm – 12 kg/m ²
		9 mm – 18 kg/m ²
Broadcast	Quartz 0,4 – 0,8 C *	~ 4 kg/m ²
	Quartz 0,8 – 1,2	~ 4 kg/m ²
Topcoat	PUCEM L 0,4 – 0,8	~ 700 g/m ²
	PUCEM L 0,8 – 1,4	~ 1200 g/m ²

* Quartz 0,4 – 0,8 C is a specially coated broadcast sand to minimize the dust during broadcasting

APPLICATION CONDITIONS:

Substrate Temperature: Minimum 15°C, maximum +25 °C

Ambient temperature: Minimum 10°C, maximum +30 °C

Relative air humidity: Maximum 75% R.H.

Dew point: Beware of condensation!

The temperature of the subfloor and non-hardened material must be at least 3°C higher than the dew point to prevent the risk of condensation formation. The ambient temperature should not fall below +5 °C within the first 24 hours after application. Excessive humidity during early curing stages may cause surface defects, such as white or matte blooming.

PROPERTIES:

Solvent-free, Indoor Air Comfort Gold
 High impact, shock, and wear-resistant
 Excellent thermal resistance
 High chemical resistance
 Abrasion resistance
 Seamless and easy to clean
 Impermeable and non-porous

TECHNICAL PROPERTIES:

Density (g/cm ³)	Approx 1,50
Solid Content	100 %
Shore Hardness	> D80
Compressive Strength (N/mm ²)	> 50
Flexural Strength (N/mm ²)	> 20
Processing Time (min.)	+/- 20
Adhesive Strength (N/mm ²)	> 1,5 (Concrete Failure)

PACKAGING:

Component A: 2,5 kg resin
 Component B: 2,7 kg hardener
 Filler: 4,5 kg
 Pigment paste: 0,3 kg
 Set: 10 kg

FORM:

Component A: Liquid, white
 Component B: Liquid, yellowish to brown
 Filler: Powder
 Pigment paste: Liquid, colorful

COLORS:

- Light grey
- Grey
- Dark grey
- Light yellow (double pigment)
- Yellow (double pigment)
- Green
- Blue
- Red

PUCEM L requires double the amount of Light Yellow and Yellow pigments to ensure an even, spot-free and uniformly coloured topcoat.

APPLICATION:

PAY ATTENTION!

- Always check if you have the correct components.(A, B, filler and pigments)
- Mixing is crucial: adhere strictly to the recommended mixing times, otherwise the chemical reaction will not occur.
- Wear protective clothing and gloves during application.

1. First add the pigment to the A-Component then add the entire contents of Component B to Component A.
2. Mix briefly until homogeneous using a Collomix DLX 120 HF or DLX 120 M mixing paddle.
3. Add the filler and continue mixing thoroughly at full speed for approximately 1 minute until a smooth, lump-free mixture is obtained.
4. Immediately pour out the mixture and spread evenly over the floor. Apply by squeegee and a pile roller. Always pour the entire bucket at once to avoid premature reaction of any material left inside. (more information below)
5. For consistent consumption on large surfaces, divide the area into sections or strips using tape. This ensures accurate regulation of material usage.
6. Once the substrate is fully coated, allow the floor to cure for approximately 12 hours before it is subjected to foot traffic. Always check that the surface is sufficiently hardened before use.
7. When used as a primer, broadcast kiln-dried quartz (0.4–0.8 mm) at approximately 600 g/m². The surface is ready for the next layer after 4–6 hours.

The application of PUCEM L as a topcoat is carried out by spreading the material evenly with a floor squeegee, followed immediately by back-rolling with a pile roller. Back-rolling should take place as soon as possible after squeegeeing, as delayed rolling can lead to visible gloss differences.

The recommended method is to distribute the material with the squeegee and then lightly back-roll to eliminate any ridges or accumulations left by the squeegee. Some gloss variation may remain, but these differences typically disappear quickly once the floor is in use.

The application of PUCEM L as a primer spreading the material evenly with a floor squeegee or even with a trowel. The use of the PUCEM L as a primer is to minimize the possibility of air bubbles in the finished floor.

SUBSTRATE PREPARATION:

The substrate must be structurally sound and sufficiently resistant to compression, with a minimum compressive strength of 25 N/mm² and an adhesive tensile strength of at least 1.5 N/mm². It must be clean, dry, and free from dirt, oil, grease, and any other contaminants.

Concrete substrates shall be mechanically prepared, for example by abrasive blast cleaning or scarifying, in order to remove cement laitance and to achieve an open-textured surface. Weak concrete and loose cementitious leveling layers must be completely removed, and any surface defects such as blowholes and voids must be repaired.

Prior to application, all dust, loose particles, and friable material must be thoroughly removed from every surface, preferably using a brush and/or an industrial vacuum cleaner.

REMARKS:

Do not apply on substrates with rising damp. Suitable for application on green concrete. After application, protect the surface from moisture, condensation, and water for at least 24 hours at +20 °C.

Process all mixed material immediately, otherwise the flow will decrease rapidly. Always use material from the same batch number to ensure uniform and consistent color.

If heating is required, do not use gas, oil, paraffin, or other fossil-fuel heaters, as they release large amounts of CO₂ and water vapor that can negatively affect the finish. Only use electrically powered hot-air blowers when heating is necessary.

Switch off underfloor heating during application. After 48 hours, the temperature can be gradually increased. Ensure the room is closed off from direct sunlight by taping off windows. Sunlight can overheat the floor, causing surface defects and disturbances.

APPLICATIONS:

- Food industry
- Chemical industry
- Pharmaceutical industry
- Dairy plants
- Company kitchen
- Beverage industry

CURING TIME:

Processing Time at 20 °C	Ca 20 minutes
Recoatable at 20°C	Ca 4-6 hours
Walkable at 20°C	Ca 12 hours
Fully Cured at 20°C	Ca 24 hours

SHELF LIFE:

Up to 12 months from the production date in original, sealed, unopened, and undamaged packaging, stored dry between +5°C and +30°C.

Exposure to direct sunlight or other intense heat sources causes large temperature fluctuations in the stored material, which can lead to condensation and/or separation. Products may only be used once the temperature is uniform, otherwise inconsistencies and poor performance may occur.

HEALTH AND SAFETY::

For information and advice on the safe handling, storage, and disposal of chemical products, users should refer to the most recent safety data sheet, which contains physical, ecological, toxicological, and other safety-related information.

VALUE BASE:

All technical data stated in this technical data sheet is based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

PUCEM floors are formulated with an aromatic binder. While this binder provides exceptional strength and wear resistance, it is sensitive to UV exposure and will discolour over time. The degree of colour change varies depending on the pigment used.

Relative Degree of Discolouration

From strongest to least colour change, the expected ranking is:

1. Light Grey and Grey – strongest discolouration
2. Light Yellow and Blue – pronounced discolouration
3. Green and Yellow – moderate discolouration
4. Dark Grey and Red – highest colour stability, minimal discolouration

LEGAL NOTICE:

The information provided here, particularly the recommendations regarding the application and end use of Eurostep products, is given in good faith and reflects our current knowledge and experience. It applies only to products that are correctly stored, handled, and applied under normal conditions in accordance with Eurostep's recommendations.

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