

PUCEM TF

DESCRIPTION:

PUCEM TF is an aromatic, four-component, solvent-free, pigmented self-levelling screed floor based on polyurethane cement. It combines exceptional chemical resistance with high mechanical strength, resulting in a robust, wear-resistant floor with a long service life and an anti-skid finish.

An Eurostep PUCEM TF floor is liquid-tight, making it ideally suited for demanding environments in the food, chemical, and pharmaceutical industries. The system offers outstanding resistance to a wide range of aggressive substances, including acids, alkalis, salts, solvents, mineral oils, kerosene, petrol, diesel, and brake fluids.

In addition, PUCEM TF features excellent heat resistance and withstands thermal shock, such as exposure to hot water. The system is also characterized by its rapid strength development, achieving high performance within a short curing period, while maintaining excellent flow properties and ease of application.

CONSUMPTION:

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	PU CEM L	~ 0,7 kg/m ² for 0,4 - 0,8 mm
		~ 1,2 kg/m ² for 0,8-1,2 mm

* 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.

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

PROPERTIES:

Solvent-free, Indoor Air Comfort Gold
 High impact, shock, and wear-resistant
 Excellent thermal resistance
 High chemical resistance
 Slip resistance R 11
 Seamless and easy to clean
 Impermeable and non-porous

TECHNICAL PROPERTIES:

Density (g/cm ³)	Approx 1,85
Solid Content	100 %
Shore Hardness	> D80
Compressive Strength (N/mm ²)	> 50
Flexural Strength (N/mm ²)	> 18
Processing Time (min.)	+/- 20
Temperature	4 mm -> -15°C to 70°C
Resistance	6 mm -> -25°C to 90°C
	10 mm -> -40°C to 120°C
Adhesive Strength (N/mm ²)	> 1,5 (Concrete Failure)

PACKAGING:

Component A: 2,5 kg resin
Component B: 2,7 kg hardener
Filler: 13 kg
Pigment paste: 0,3 kg
Set: 18,5 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
- Yellow
- Green
- Blue
- Red

1. First add the pigment to the A-Component then add the entire content of Component B to Component A.
2. Mix briefly with a Collomix DLX 120 HF / DLX 120 M mixing paddle until a homogeneous mixture is obtained.
3. Add the filler and mix thoroughly at full power for approximately 1 minute until a lump-free, homogeneous mixture is achieved.
4. Pour the entire mixture onto the substrate and spread evenly across the room with 4676-000-S10 56cm or the 4700-280-S10 28cm notched / serrated strip. Allow the material to flow for about 10 minutes before broadcasting. Always pour the complete contents of the bucket in one go to prevent premature reaction of residual material. Use a spiked roller if necessary. For even consumption in large areas, it is recommended to divide the surface into sections with tape. This helps regulate material usage.
5. Depending on the desired slip-resistance level, broadcast with quartz 0.4–0.8 or 0.8–1.2
6. Once the substrate is evenly coated, allow the floor to cure for approximately 4-6 hours before applying the next layer. Always verify that the floor is sufficiently hardened.
7. After curing, apply the PUCEM L topcoat.

SUBSTRATE PREPARATION:

Very porous substrates, such as sand–cement screeds, must be primed with PUCEM L. Without primer, excessive resin absorption into the substrate can occur, which reduces the flow and self-levelling properties of PUCEM TF.

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.

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

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.

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.

However, variations in materials, substrates, and actual site conditions mean that no warranty of merchantability or fitness for a particular purpose, nor any liability arising from any legal relationship, can be derived from this information, written recommendations, or other advice provided.

It is the responsibility of the user to test the suitability of the product for the intended application and purpose. Eurostep reserves the right to alter the properties of its products at any time. Proprietary rights of third parties must be respected.

All orders are subject to our current terms of sale and delivery. Users must always refer to the latest issue of the relevant technical data sheet, available on request.

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