

CP POLYCRETE 1MM

(MATT FINISH)



Description

Polyurethane concrete is a high-performance, resinous flooring system designed for extreme industrial environments. It is a cementitious urethane-based material that combines cement, water, graded aggregates, and polymer resins to create a durable, chemical-resistant, and thermal shock-resistant flooring solution.

Uses

❖ Food & Beverage Processing Facilities

- Withstands frequent washdowns with hot water and chemicals.
- Resists organic acids from food spills (dairy, citrus, vinegar, etc.).
- Provides a seamless, anti-microbial surface for hygiene compliance.

❖ Commercial Kitchens & Restaurants

- Can handle heavy foot traffic, spills, and cleaning procedures.
- Prevents bacteria growth with its seamless, non-porous nature.
- Slip-resistant options help reduce accidents in wet areas.

❖ Breweries & Wineries

- Resistant to acids from fermentation and cleaning chemicals.
- Can withstand temperature changes from cold storage to hot water exposure.
- Durable under heavy barrels and equipment.

❖ Pharmaceutical & Healthcare Facilities

- Meets strict hygiene requirements by resisting bacteria and chemical exposure.
- Non-toxic and low-VOC, making it safe for sterile environments.
- Tolerates heavy equipment movement without cracking.

❖ Chemical Processing Plants

- Holds up against strong acids, solvents, and alkalis.
- Resists heat and thermal cycling from production processes.
- Prevents floor degradation from aggressive cleaning agents.

❖ Cold Storage & Freezers

- Thermal shock resistance prevents cracking from temperature fluctuations.
- Maintains structural integrity in freezing and thawing cycles.
- Slip-resistant surfaces help with safety in icy conditions.

❖ Automotive & Aerospace Facilities

- Stands up to oil, grease, and fuel spills.
- Resists tire marks and heavy vehicle loads.
- Provides an easy-to-clean, long-lasting surface.

❖ Manufacturing & Warehouses

- Handles forklift and heavy machinery traffic.
- Resists abrasions and impact damage.
- Available in anti-static formulations for electronic manufacturing.

❖ Retail & Public Spaces

- Decorative options available for aesthetic appeal.
- Easy to maintain with a seamless, stain-resistant finish.
- Can be applied in different textures for safety and design flexibility.

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Features & Benefits

- 1. High Durability & Strength**
 - ✓ Resistant to **heavy impact, abrasion, and wear** from machinery and foot traffic.
 - ✓ Can handle **forklifts, pallet jacks, and heavy loads** without cracking.
- 2. Thermal Shock Resistance**
 - ✓ Withstands extreme temperature fluctuations from -40°F to 250°F.
 - ✓ Ideal for environments with steam cleaning, hot spills, and freezers.
- 3. Superior Chemical Resistance**
 - ✓ Resistant to acids, alkalis, solvents, and aggressive cleaning agents.
 - ✓ Ideal for food processing, breweries, pharmaceutical, and chemical plants.
- 4. Moisture Tolerance**
 - ✓ Can be applied to damp or high-moisture concrete surfaces.
 - ✓ Excellent for wet environments like kitchens and cold storage.
- 5. Hygienic & Seamless**
 - ✓ Non-porous surface prevents bacteria and Mold growth.
 - ✓ Meets strict FDA, USDA, and HACCP standards for sanitary environments.
- 6. Fast Cure & Installation**
 - ✓ Quick application minimizes downtime.
 - ✓ Light foot traffic in 12 hours, full cure in 7 days.
- 7. Slip-Resistant Options**
 - ✓ Can be customized with textured finishes for improved safety.
 - ✓ Helps reduce slips in wet and greasy conditions.
- 8. Strong Adhesion to Concrete**
 - ✓ Bonds permanently to properly prepared concrete substrates.
 - ✓ High adhesion strength prevents delamination and peeling.

9. Low Odor& VOC

- ✓ Environmentally friendly with low emissions.
- ✓ Safe for indoor applications with minimal disruption.

10. Aesthetic & Customizable

- ✓ Available in a variety of colours and finishes.
- ✓ Can be applied in different thicknesses.

Properties

Form	Part A – Base Part B – Hardener Part C - Filer
Mixed Density	1.58
Application thickness	1mm to 10mm
Pot Life	7-9 minutes @ 25 degC
Tack free time	4-6 hours
Chemical Resistance	Wide range of acids, alkalis, solvent, petrol, diesel, lubricating oil etc.,

Additional Information

COVERAGE RATE	PACK SIZE	SHELF LIFE
THEORETICAL CONSUMPTION (1mm) For 1 set: 7 Sqmtr	11.1 kg Resin: 2.4 Hardner :2.7 Filler: 6 Kg	12 months from date of manufacture if stored in shaded and dry area.

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Application Methodology

❖ Surface Preparation

- **Concrete must be clean, dry, and free of contaminants** (oils, grease, curing agents, etc.).
- **Mechanical profiling** (shot blasting, diamond grinding) to achieve a **Concrete Surface Profile (CSP) of 3–5**.
- **Moisture test** may be required—urethane cement can handle high moisture, but excessive levels may need a primer.

❖ Mixing the Components

Polyurethane concrete is a **multi-component system** (resin, hardener, aggregates, and sometimes pigments).

- **Mix at correct ratios** using a **high-speed drill mixer** (low-speed for larger batches).
- **Mix time:** 2–3 minutes until a uniform consistency is achieved.
- Apply quickly after mixing as the **pot life is short** (usually minutes).

❖ Application Methods

A. Slurry System (Self-Leveling Application) (1 mm thickness)

Used for: Smooth, seamless floors in food, pharma, and chemical plants.

Process:

- Pour the mixed material onto the prepared surface.
- Spread using a **notched squeegee or trowel**.
- Use a **spiked roller** to remove air bubbles.
- Optional: Broadcast sand or quartz for texture.

B. Broadcast System (Slip-Resistant Application) (1 mm thickness)

Used for: Heavy-duty, high-traction flooring.

Process:

- Apply a **self-leveling base coat**.
- **Broadcast aggregate** (sand or quartz) into the wet material.
- Let it cure, then **remove excess aggregate**.

- Apply a **topcoat** to seal and lock the broadcast layer.

❖ Curing & Finalization

- **Initial Cure: 12–24 hours** (light foot traffic).
- **Full Cure: 5–7 days** (chemical resistance and heavy loads).
- Maintain **proper temperature and humidity** during curing.

Tips for Best Results

- ✓ Work in **sections** to avoid material setting before spreading.
- ✓ Maintain proper **temperature and humidity** levels as per the product's technical data sheet.
- ✓ Use **spiked shoes** when walking on wet epoxy to avoid footprints.
- ✓ Always wear **protective gloves, eyewear, and a respirator** when handling epoxy products.

Application Restrictions

- Avoid application below 5deg C and above 40 deg C. Pot life of mixed material will change based on ambient temperature.
- Substrate moisture must be checked prior to application.

General Terms & Conditions

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