CP PU SL1000(MATT FINISH)

Colour Plus
Polyurethanes Pvt. Ltd.,
An ISO 9001:2015 Certified Company

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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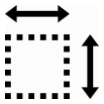
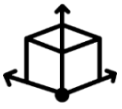
Features & Benefits

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

Users must always refer to the most recent data sheet. Upon request, additional copies will be provided. This technical data sheet is given in good faith and does not guarantee the optimum utility of the product always. The information contained herein is believed to be reliable to the best of our knowledge.
Colourplus exempted from all legal liability in case of injury incurred from product handing without appropriate technical precautions.
Colourplus reserves the right to change the product specifications or properties. All orders are considered based on current delivery and sale infrastructures.

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