



CEMTEC UNIFLEX PU

ABRASION RESISTANT POLYURETHANE COATING



DESCRIPTION

CEMTEC UNIFLEX PU is a two-component, 100% solids polyurethane elastomer, which forms a hardwearing but flexible coating after application. It is suitable for application on a wide range of substrates, such as concrete, wood, steel, and aluminum. This highly cross-linked polymer coating possess a unique balance of tensile strength, elongation and hardness. This balance of physical properties contributes to its resistance to abrasion and tearing, and results in outstanding flexibility, wear and impact resistance. **CEMTEC UNIFLEX PU** is a rapid curing solvent less system, enabling fast, high-build coats without solvent entrapment.

BASIC USES

CEMTEC UNIFLEX PU is designed for use as a wear resistant, membrane on vehicular and pedestrian traffic decks. It is a durable abrasion resistant coating which waterproofs and protects the substrate from the destructive forces of gasoline, oil, salts, solvents, cleaning compounds and other chemicals commonly found in parking deck structures. It is widely used for floors & walls in production and storage areas, (Such as food storage, vegetables storage etc.), show-rooms, trade fair and exhibition premises, workshops, pharmaceutical industries & hospitals, garages and parking decks. It is also used as a waterproofing and protective coating in drinking water tanks and sewage treatment plants.

CEMTEC UNIFLEX PU is tested to be used in the potable water tanks as per BS 6920 Part 1. It is also tested for chemical resistance against the chemicals generally present in the sewage treatment plants.

Onto the freshly laid **CEMTEC UNIFLEX PU** coating dried sand can be broadcast to obtain non-skid surface

PROPERTIES (WET):

- MIXING RATIO
5 Parts A to 2 Parts B by volume
- MIXED USABLE POT LIFE
30 minutes @ 25°C
- SOLIDS BY WEIGHT (MIXED)
100% (ASTM D 1353)
- SOLIDS BY VOLUME (MIXED)
100% (ASTM D 5201)
- FULL CURE
7 days @ 25°C

- DRY TIME TO WALK ON
12 hours

PHYSICAL PROPERTIES:

1. Tensile stress at break : 20 Mpa (DIN EN ISO 527)
2. Tear propagation Resistance : 60MPa (DIN EN ISO 527)
3. Shore D hardness: 65 (ASTM D2240)
4. Bond strength : 2.7N/mm²
5. Flexibility : Passes 1/4 inch mandrel bend @ -4°F (-20°C)
6. Impact Resistance : 30mj/mm²
7. Permeance : 1.2 perms @ 60 mil system (ASTM E398)

Water Absorption:

Less than 0.7% weight gains after 30 days of immersion in distilled water. No swelling or softening (ASTM D570)

DIRECTION FOR USE

Surface Preparation

All surfaces must be clean and free of any moisture, dirt, oil, grease, soapy films, surface chemicals, or other foreign contaminants. surface shall be free of sharp projections, ridges, and loose aggregate.

The preferred methods of preparation are: blasting, high-pressure water jetting, surface grinding or similar. Actual method of preparation will vary from site to site depending on the age of the concrete, the degree of finishing or trowelling or presence of contaminants or curing compounds. Any voids, cracks, blowholes if present, should be filled and repaired with epoxy gel CEMTEC R 44.

Priming

The surface must be primed by applying an epoxy prime coat of ELASTOPOXY PRIMER / EPOMORT 1000 MV. The two components of ELASTOPOXY PRIMER / EPOMORT 1000 MV must be mixed thoroughly and applied by brush or roller.

Mixing

The two components, Part A and Part B of **CEMTEC UNIFLEX PU** must be mixed well using a jiffy-style power mixer for a minimum of 3 to 5 minutes until a uniform color and consistency are achieved. The mixed content shall be transferred to another container and mixing shall be continued for one minute.

COVERAGE	1 m ² liter at 1.0 mm thickness.
PACKAGING	Available in 10 liter kit.
COLOR	Available in standard gray other color are available upon request

Application

The mixed **CEMTEC UNIFLEX PU** can be applied by brush or roller on the prepared surface. Successive coats should be applied perpendicular to the previous coat to assure proper coverage and uniform film build. All surface must be uniformly coated and be free from voids, pinholes and blisters. Allow each coat of **CEMTEC UNIFLEX PU** to dry tack free prior to applying an additional coat.

Non-skid surfaces

Non-skid surfaces can be obtained by broadcasting dried sand (0.6 mm to 1mm) on the **CEMTEC UNIFLEX PU** coating in excess of approximately 0.4 kg per m². Allow to cure for at least 8 hours @ 200C and then remove excess aggregate by scraping followed with vacuum cleaning. Apply another coat of **CEMTEC UNIFLEX PU** on the above Non-skid surface for improving cleanability.

Protective coat

The above coating system can be protected by applying a top-coat of **CEMDECK ALIPHATIC** which imparts UV Resistance and additional abrasion resistance.

CLEAN-UP

Clean all equipments and tools with M.E.K. immediately.

SHELF LIFE & STORAGE:

Shelf life of Part A and Part B components in unopened containers is 6 months from the date of shipment from CMCI factory. If shelf life has expired, contact CMCI's Technical department before attempting to utilize the material. Material must be stored at temperatures between 50°F and 100°F (10°C and 38°C). Do not open containers until ready to use the material.

LIMITATIONS & PRECAUTIONS:

CEMTEC UNIFLEX PU components are affected by moisture prior to catalyzation and must be protected from moisture contamination. Keep all containers tightly closed during storage. Containers are factory sealed with an inert gas or dry air and tightly sealed to protect the components from moisture contaminations.

The theoretical film thickness given for coverage per liter is based on smooth, non-porous surfaces. Actual quantities required in the field to achieve the minimum dry film thickness will depend upon the surface texture, ambient weather conditions and other factors. It is the responsibility of the applicator to apply sufficient material to achieve the minimum dry film thickness required.

HEALTH & SAFETY

- Use only in a well ventilated area.
- Avoid breathing of vapor or spray mist. For exterior applications, approved (MESA / NIOSH) chemical cartridge respirator must be worn by applicator and personnel in vicinity of application.
- If used indoors, provide mechanical exhaust ventilation.
- During indoor spray operations, airline masks or positive pressure hose mask must be worn.
- Avoid contact with eyes and skin

CMCI manufactures its products at their manufacturing facility in Saudi Arabia as per the Quality Procedures certified to conform with quality Management System described in ISO 9000 series

CMCI provides a comprehensive technical support system for its full range of high performance construction products CMCI also offers full technical field support to consultants, Architects, contractors, applicators and End Users.

"High Quality Construction Chemicals"
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The Technical Specification information and recommendations given are based on the current technical knowledge and the user or his representative is recommended to check the suitability of the product CMCI reserves the right to amend the technical characteristic of the product as part of ongoing research and development. As the work execution is beyond the direct and continuous control of CMCI no guaranty and or responsibility is assumed on the performance of work completion executed with use of our products.