

### **High Performance Concrete Protection**

## **MF-CPU**



## A SELF -SMOOTHING POLYURETHANE SCREED (3 - 6 MM)

#### **Description**

**Kosflor MF-CPU** is a 3 component, self-smoothing seamless Polyurethane industrial floor topping. It offer high mechanical, excellent chemical and shock resistance properties.

#### **Feature**

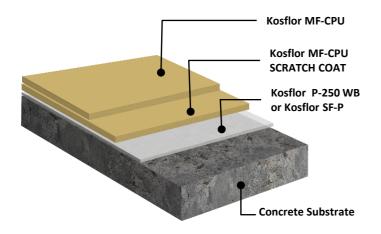
Area use for GMP, HYGIENIC, HACCP industrial floor in the food industry beverage, seafood, meat bakeries processing, cold storage, kitchen, pharmaceutical industrial, warehouses, logistic areas, palm oil processing and packaging plants.

#### **Benefits**

- Hygienic hot water steaming clean.
- Hard wearing, food abrasion resistance.
- High chemical resistance against alkalis, acids and organic solvent.
- High mechanicals and impact resistance.
- Temperature service with range between -5°C to 100°C
- Resist fungi, mildew and growth.
- Solvent free. Odorless.
- After cured, non-cytotoxic response.

#### **Colour & Texture**

- · Standard Color Matt
- Exposed to UV may occur color change



Technical Data				
Density (28C) g/cm <sup>3</sup>	:	1.9g/ml		
Tensile Strength	:	25Mpa		
Compressive Strength	:	28 days : 55 N/mm² 14 days : 50 N/mm²		
Adhesive strength	:	>2.0Mpa (Concrete Failure)		
Flexural strength	:	21Mpa		
Service temperature	:	at 3mm: 5°C ~ 80°C (max) at 6mm: - 5°C ~ 100°C (max)		
Shore D hardness	:	79 ~ 84		
Cytotoxicity (2.4 or less)	:	below < 0.5		
Taber Abrader ASTM D 4060 – 10 Wear Index in mg/1000 Revolution/1kg	:	38mg		
BS 6920: Part 1 :2000 clause 6 Growth or Aquatic Microorganisms	:	<2.39 or less		
ASTM E96/E96M-10 Water Vapor Transmission, g/hr.m²	:	1.23±		
Pot life (working time)	:	15°C 30min 25°C 25min 30°C 22min		
Material consumption	:	1.9kg/m²@1mm		
Recoating time (28°C)	:	within 14 to 18 hours		
Self life & storage (unopened and in good conditions Temperature < 35°C)	:	Part A : 9 months Part B : 9 months Color Filler C-14 : 9 months		
Packaging 20KG/set	:	Part A : 3 KG Part B : 3 KG Color Filler C-14 : 14 KG		
Curing time Foot traffic Light traffic Fully chemicals cure	:	15°C       25°C       30°C         36hrs       30hrs       24hrs         48hrs       36hrs       30hrs         7days       6days       5days		



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#### **Substrate Requirement & Preparation**

Concrete substrate must be clean, free of laitance and contaminants. It must be sound and firm with a compressive strength of 25 MPa and bond strength of 1.5 MPa minimum.

The concrete substrate must be dry and waterproofed against negative ground water pressure. The moisture content of concrete of concrete substrate must be less than 4%. If the moisture content of the concrete of the concrete substrate exceeds 7%, apply an epoxy mortar of high compressive strength (>80MPa) a 4 to 5mm thickness as a moisture barrier, allow to cure over-night before the application of **Kosflor MF-CPU**.

Prepare the concrete substrate surface by captive shot blasting or mechanical grinding, repair damaged area and patch up cracks and holes using a patching compound. Cut 3mm x 3mm grooves around the perimeter of the floor and at end points(eg: plinth, column, drains etc..)

#### **Application**

Store materials in a sheltered area away from direct sunlight. Materials shall be conditioned at temperature close to the site conditions.

#### **Applying Primer:**

Kosflor P-250 WB was the recommended primer.

Empty Components A and Components B into Clean Mixing Container. Start mixing using a mechanical mixer at low speed (approx. 500rpm) for 1 minutes or until homogeneous. Transfer the mixed material into another clean container and mix for 1 minute.

Pour the mixed primer onto the prepared floor, spread with a squeeze and back roll with a roller. Allow 14-18 hours cure before proceeding to next stage of application.

If the concrete surface is porous, apply a second coat of primer to ensure the concrete surface is sealed to avoid the rick of out-gassing.

#### **Applying Kosflor MF-CPU**

Shake Part A well before emptying into a clean mixing container together with Part B. Start mixing using a helical mixer at low speed (500rpm) for approximately 5 seconds. With mixer running add component C (Color Filler) and mix for 30 second or until homogeneous gradually increasing the mixing speed approximately 750 rpm. Mix for 3 minutes moving the mixier from top to bottom and side to side to ensure all filler is properly dispersed or until homogeneous.

Transfer the mixed material to a clean mixing container and mix for 1 minute.

Pour the mixture onto treated surface and spread in with a notched trowel or pin rake set to the nominated thickness and spike roll immediately to release the entrapped air from mixing. The application process must be carried out within the pot life (working time approximately 20 minutes)

#### **Applying Kosflor MF-CPU Scratch Coat (optional)**

A Scratch coat of **Kosflor MF-CPU** at 1mm thickness may be applied as a leveling layer to improve the sub-floor surface if necessary or for situation subject to extreme service temperature (consult Kossan Paint Technical).

Pour the mixture onto the surface and spread with the straight edge trowel press hard against the surface. Allow 14-18 hours cure before applying **Kosflor MF-CPU** at the nominated thickness as above.

#### **Chemical Resistant**

CHEMICAL	CONCENTRATION	TEMP (°C)	RESISTANCE
Acetic Acid	10%	28°C	Excellent
Beer	-	28°C	Excellent
Blood	-	28°C	Excellent
Citric Acid	20%	28°C	Excellent
Detergents- acidic	All	28°C	Excellent
Detergents- alkaline	All	28°C	Excellent
Fats-animals and vegetable	-	28°C	Excellent
Fish oils	-	28°C	Excellent
Lactic Acid	5%	28°C	Excellent
Oil-diesel	-	28°C	Excellent
Oil -Fuel	-	28°C	Excellent
Oil-Mineral	-	28°C	Excellent
Sugar	100%	28°C	Excellent
Sodium hydroxide	50%	28°C	Excellent
Sodium Sulphate	All	28°C	Excellent

<sup>\*</sup> Contact Technical Department for further information

#### **Temperature Conditions of Application**

- Do not apply when the relative humidity exceeds 90% of when the surface temperature to be coated is lower then dew point.
- Do not apply when temperatures are below 5°C and temperatures above 40°C

#### Maintenance and care

Regular Clean and maintenance will prolong the life of **Kosflor MF-CPU** floor topping. Regular cleaning using a single or double headed rotary scrubber with alkaline detergent is recommended.

#### **Health & Safety**

Safe handling of **Kosflor MF-CPU** is given in the Safety Data Sheet. Suitable clothing and eye protection gear shell be worn for precaution purpose. The application site shall have good ventilation. If not, a portable exhaust fan shall be used.

#### **Important Note**

KOSSAN PAINT product are warranty against defective materials. Due to different substrate and working conditions, no guarantee of an application result or any liability claims. The users are required to have a test ahead based on their intended use.

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