

Estocrete MF

Heavy Duty Polyurethane flooring system

Description

Estocrete MF is heavy duty polyurethane flooring system, monolithic, self-levelling polyurethane screed with a thickness of 3-6 mm. It provides excellent resistance to aggressive chemicals, heavy impact and high temperature. It is dense and impervious and provides an anti-slip surface suitable for dry and wet areas where a joint free finish and a robust long-lived floor is required.

Uses

Estocrete MF is suitable for condition requiring the chemical resistance and easy to clean surface is required, such as :

- Food & Beverage Manufacturing
- Loading Bay
- Dairies Production
- Cold Storages, Chiller & Freezer
- Commercial Kitchens
- Pharmaceutical
- Chemical Plant Processing
- Meat, Fish & Poultry Processing

Features

Excellent Chemical Resistance - Resistant to majority of acids & solvents used in the manufacturing process

Temperature Resistant - Resistant to temperatures ranging from -5°C to 90°C hence resistant to hot water and steam

No VOC & Phthalate free - Biopolyol based product with no harmful emissions & odour

Abrasion Resistant - Resistant to high impact and heavy traffic therefore protects the surface below

Typical Properties

Items	Specification
Appearance	Smooth
Mixed Density	1.90 kg/l
Fully Cured at 23°C	7 days
Applied Thickness	3-6 mm
Water Permeability	Nil – Karsten test (impermeable)
Shore D Hardness	90
Compressive Strength, (Mpa) BS6319	>50.0
Flexural Strength, (Mpa) ISO178	>21.0
Tensile Strength, (Mpa) ISO R527	>7.0
Impact resistance, BRE Screed tester, mm	<0.5
Crack Bridging Ability, mm	1
Reaction to fire (EN 13501)	BfL – s1
Bond Strength (Pull-off test), MPa	>1.5 concrete Failure
Temperature Resistance (at 6 mm), °C	-5 to +90
Thermal Expansion Coefficient, ppm	<25
Abrasion Resistance (Taber Abrader), g/1000 cycles	0.1
Water absorption	0 mL
Thermal Conductivity, W/m°C	0.9
Slip Resistance	R9 – R13
Food Contact	No contamination
Color	Green, Cream, Yellow, Grey

Samples cured for 28 days at 20°C. The performance data is typical and based upon controlled laboratory conditions. Actual performance on the job site may vary from these values based on actual site conditions

UV Resistance

The **Estocrete MF** systems have been formulated to provide the very highest chemical and heat resistance. UV exposure though not affecting the performance of the **Estocrete MF**, but will result in yellowing of the floor which is most apparent in light colors especially in outdoor application

Packaging

Estocrete MF Part A : 2.90 kg

Estocrete MF Part B : 3.00 kg

Estocrete MF Part C : 13.5 kg

Estocrete Part D

(pigment powder) : 0.6 kg

Coverage Rate

Usage: 1.90 kg/m²/mm

Estocrete MF 20.0 kg/ set will cover :

- Thickness 3 mm: 3.5 m²
- Thickness 6 mm: 1.75 m²

Coverage rate is calculated based on a smooth surface and may vary based on the substrate roughness and other conditions.

Application Conditions

Ideal ambient, material and substrate temperature range is 15-30°C to achieve best results. Application shouldn't be carried out if the temperature of the concrete is less than 10°C or where the ambient relative humidity is greater than 85%. If the surface is clearly wet due to high relative humidity, the surface should be dried by means available.

Concrete substrate:

The concrete substrate should be a minimum of 25 Mpa, and free from laitance, dust, oil, grease, loose material, and other contamination which impair adhesion. The substrate should be dry to 75 % RH as per BS 8204 and free from dampness and rising ground water pressure etc. The tensile strength of the substrate should exceed 1.5 N/Sq. m. The maximum moisture content in the subfloor should not be more than 5%.

Surface Preparation

Surface must be prepared by suitable mechanical means grinding, scarifying or as per the site requirement to ensure a perfect bonding with substrate.

- Remove all loose particles, dust using suitable mechanical means - industrial vacuum cleaner etc.
- Make grooves of 8mm X 8mm in size at approximately 100mm distance parallel to the wall and adjacent to the doorways, covering not more than 20.Sq.meter. Fill the grooves with the same material.
- Repair all imperfections substrate - pot holes, cracks, flatness
- All the expansion & movement joints should be properly cut and maintained for terminations. The surface is allowed to dry thoroughly before the priming /scratch coat is applied

Application

Apply the scratch coat of 1mm of this product followed by the topcoat. This is a monolithic system.

Add the Part A contents and then the Part D Pigment pack into a mixing bucket or directly into a rotary drum mixer. Mix thoroughly for one minute then add the Part B contents. Mix at a low speed (ca.300 rpm) using an electric drill and paddle for at least 1 minute until it is homogeneous. While stirring add component C and stir for another 2 minutes until a homogeneous mix of the four components is achieved.

Important Note

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Scrape the sides and the bottom of the container several times during mixing to ensure complete mixing.

Apply immediately to prepare areas without delay using a straight edge trowel or depth set rake to achieve the desired thickness. The surface should be gently rolled with spiked roller in order to release any entrapped air from the mixed also to blend out any trowel marks. Scratch off the excess with the edge of the trowel and leave to cure for 16 hours or overnight.

Pot Life

Pot life is 20 minutes when mixing at 25 - 27°C. All mixed products must be used within the pot life time limit, if the product is left in the container after mixing and not used, it may release hazardous fumes due to exothermic reaction.

Note

If severe pin-holing is evident during the cured scratch coat, it indicates that air is rising from the substrate, remedial action should be taken. Failure to do so can result in increased risk of pin-holing on the surface top.

Storage

Store in a dry place away from direct sunlight with temperatures between 15°C-30°C.

Shelf Life

Part A and B have a shelf life of 12 months and must be protected from frost.

Part C has a shelf life of 8 months and must be protected from humidity.

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