

MC-DUR 230

Polyurethane Hybrid self-leveling floor coating.

PRODUCT DESCRIPTION: **MC-DUR 230** is a 4-component, self-leveling, anti-slip, matte-finish polyurethane floor coating. The product has long-term chemical resistance at high temperatures, good resistance to thermal shock and abrasion. In addition, the product can be used as a direct coating on old or worn polyurethane floors.

- PRODUCT PROPERTIES:**
- Excellent chemical resistance.
 - High temperature resistance up to 80°C.
 - Resists bacterial growth; fungi, mold and mildew.
 - High-density systems with maximum wear, abrasion and impact resistance.
 - Maintains a smooth, hard and durable surface over time.
 - Creates a seamless finish, making cleaning quick and easy.
 - User-friendly, no solvent odour during installation.
 - One of the fastest "turnaround time" polymer modified product which reduces cost.

- AREAS OF APPLICATION:** Wide range of applications, including:
- Floors of seafood factories, food factories, breweries, beverage factories, etc.
 - Floors of kitchen areas, specialized cleaning areas, areas requiring high chemical resistance, chemical warehouses.
 - Heat shock resistant floors for cold storage areas, freezers, etc.
 - Floor areas requiring high mechanical strength and other stability.

- APPLICATION ADVICE:**
- Surface requirement & preparation:**
- Suitable substrates are concrete or polymer modified mortar with a minimum compressive strength of 25 N/mm² and a tensile strength of > 1.5 N/mm².
 - Substrate to be coated must be clean, free from dust, oil, water, paint residues, loose constituents or any contaminants. Make use of a concrete surface planer, grit blasting, surface grinding or other mechanical means until a flat, rough profile is evident. Prepare grooves, 5mm (wide) x 5mm (deep), at all edges, column joints, doors and membrane end areas to ensure the membrane does not peel or pop.

Mixing: Shake the containers of components A and B well before use. First put component A into a clean mixing vessel and stir in component D MC-DUR Color (pigment) and stir. Then add component B and continue stirring. Use a slow speed mixer and stir the mixture for about 1 minute until a homogeneous mixture is obtained, without any streaks of color. Then add the aggregate (component C) to the pre-mixed plastic mixture and continue stirring until the mixture is homogeneous. It is necessary to use a mixer to mix the plastic components with the aggregate together. Mixing time depends on the temperature of component C. At a temperature of 18 - 22°C, mixing time can be up to 3 minutes.

Application:

- Apply **MC-DUR 230** within its pot life.
- Spread the composite matrix to thickness of 3-6mm and consolidate with pin rake or notched squeegee set to the correct depth. Immediately release any trapped air by spike rolling.

Temperature: **MC-DUR 230** should not be applied on material or floor temperatures below 10°C. Temperatures should not fall below 5°C in the first 24 hours after application. **MC-DUR 230** is not designed for immersion.

Service temperatures:

- For 3mm floor thickness, it can withstand temperatures ranging from -5°C to +80°C.
- For 6mm floor thickness, it can withstand temperatures ranging from -25°C to +100°C.

Curing:

	25°C @ 75% RH	35°C @ 75% RH
Foot traffic. (hr)	10	8
Light traffic. (hr)	24	18
Full traffic. (hr)	48	24
Full cure. (days)	7	5

Chemical resistance: MC-DUR 230 will resist spillages of :

- Dilute and concentrated acids: hydrochloric, nitric, phosphoric and sulphuric.
- Dilute and concentrated alkalis, including sodium hydroxide to 50% concentration.
- Most dilute and concentrated organic acids.
- Fats, oil and sugar.
- Mineral oils, kerosene, gasoline and brake fluids.
- Most organic solvents.

Cleaning: Clean all tools with Washing Thinner or other solvents before the material hardens. Small unreacted Part B in container is to be decontaminated with a 5% solution of washing soda (sodium carbonate) prior to disposal. After material has set it is virtually impossible to get off and will only wear off over time.

Maintenance: Regular cleaning and maintenance will prolong the life of all resin floors, enhance the appearance and reduce the tendency to retain dirt.

TECHNICAL DATA:

Characteristic	Unit	Value	Comment
No. of Components		4	
Shore D hardness		80 - 85	ASTM D2240
Estimated Coverage	kg/m ² /3mm	5.7	
	kg/m ² /1mm	1.9	
Mixing Ratio	By weight (kg)	2.85 : 3 : 14 : 0.18	Part A : Part B : Part C : Part D
Density	kg/mm/m ²	1.9	
Compressive strength	N/mm ²	48 - 52	ASTM C942
Tensile strength	N/mm ²	7 - 9	ASTM D638-14
Flexural strength	N/mm ²	19 - 21	ASTM C348 : 2002
Adhesion strength to concrete	Mpa	> 2	ASTM 7234-21
Temperature resistance	°C	80	
Pot life	Minutes	15	at 30°C
		20	at 20°C

PRODUCT CHARACTERISTICS:

Color	Red; Green; Blue; Dark grey; Light grey; Yellow.
Storage	Unopened in dry conditions between 10°C - 32°C.
Shelf Life	Component A, B and D: 12 months.
	Component C: 8 months.
Packaging	Component A: 2.85 kg canister
	Component B: 3 kg canister
	Component C: 14 kg bag
	Component D: 0.18 kg bag

Note: The information on this data sheet is based on our experiences and correct to the best of our knowledge. It is, however, not binding. It has to be adjusted to the individual structure, application purpose and especially to local conditions. Our data refers to the accepted engineering rules, which have to be observed during application. This provided we are liable for the correctness of this data within the scope of our terms and conditions of sale-delivery-and-service. Recommendations of our employees which differ from the data contained in our information sheets are only binding if given in written form. The accepted engineering rules must be observed at all times.

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