

# MC-DUR EPW

Solvent-free, non-toxic, two-component Epoxy-based protective coating, specially formulated for use in structures containing food and potable water.

- PRODUCT DESCRIPTION:**
- **MC-DUR EPW** is a two-component, solvent-free and non-toxic epoxy coating, specially designed for applications in the food industry and potable water containment structures. The product forms a highly durable epoxy film, ensuring absolute safety for use in food processing environments and areas requiring stringent hygiene standards.
  - For concrete substrates with adequate strength and density, the product can be applied directly without the need for a primer.

- PRODUCT PROPERTIES:**
- High adhesion to substrates.
  - Excellent water resistance, corrosion resistance and chemical resistance.
  - Solvent-free, non-toxic, and safe for application in confined or enclosed spaces.
  - Smooth, easy-to-clean and hygienic surface finish.

- AREAS OF APPLICATION:**
- Protective coating for load-bearing structures and waterproof lining for potable water tanks.
  - Protective coating for food storage tanks, vessels, and containers used for food and beverage processing.
  - Ideal for use in storage tanks, containment vessels, silos, mobile water tanks, breweries, dairy plants, meat processing facilities, and other food-related storage and processing structures.
  - Suitable as a protective coating over concrete, steel and masonry substrates.

- APPLICATION NOTES:**
- **Substrate preparation:**
    - **Concrete surface preparation:** All surfaces must be smooth, sound and free from any unsound material and any contaminations such as oil, grease, dust, loose particles,.... For new concrete surfaces, which have fully developed strength, dirt, formwork release oils or other curing compounds must be removed and cleaned. For old structures, existing paints should be removed thoroughly and all the honey combs, pinholes, bug holes should be filled with Nafufill range mortars.
    - **Steel surface preparation:** The steel surface must be carefully prepared, they must be free from rust and any other contaminants or corrosion developing products. Therefore, the steel surface should be treated by shot blasting with quartz-free abrasives, sand-blasting or other suitable techniques. The use of rust removers is not recommended to clean the steel surface.
  - **Mixing:** **MC-DUR EPW** consists of two components, supplied in prepacked quantities. First, the base component is mixed thoroughly and then the hardener is added. Both components are thoroughly mixed for at least 3 minutes using a slow speed mixer (maximum 300 rpm) to obtain a homogeneous mixture. Minimize air entrainment during mixing.
  - **Application:**
    - **MC-DUR EPW** can be applied by nylon bristle brush or roller depending upon substrate.

- A minimum of two coats of **MC-DUR EPW** should be applied to achieve the best waterproofing properties. During the application of the first coat, the coating should be applied in a single direction and ensure a continuous coating over the entire surface to be waterproofed. The second coat should be applied after the first coat has completely dried and in a direction perpendicular to the application direction of the first coat to ensure continuity of the coating over the entire surface. The minimum working thickness (WFT) must be maintained at 100µ per coat.
- **Conditions of application:** During application of **MC-DUR EPW** if the temperature of the structure and ambient temperature drops below +10°C, the application of coating should stop immediately.
- **Cleaning:** Clean all tools and equipment immediately with MC-Thinner EP after use. Hardened material can only be removed mechanically.
- **Safety and Precaution:** During the construction process, appropriate protective clothing (safety glasses and gloves) should be worn. The unmixed hardener is highly alkaline and causes skin irritation. Therefore, the product should not come into contact with the skin, especially the eyes. If the product gets into the eyes, they should be washed immediately with clean water. A sink should be installed at the construction site to prevent such cases. Contact medical advice centers immediately in case of any safety incidents.

#### TECHNICAL DATA:

Characteristic	Unit	Value	Comments
Pot life	Minutes	30 - 40	@ 25°C as per ASTM D2471
Minimum application temperature	°C	+10°C	
Mixing ratio	P.b.w	4:1	Resin : Hardener
Adhesion:			
• On concrete (after 7 days)	Mpa	> 1.5	EN 1542
• On steel (after 7 days)	Mpa	> 2.5	EN 1542
Film thickness when fully dry	µ	400	ASTM D 1186; 2 coats
VOC content	(g/L)	Max. 5	
Full drying time	Hours	24	ASTM D 1640
Converage	Kg/m <sup>2</sup> /layer	0.2 - 0.3	@ 200µ DF; thickness of each single coat

*\* Specifications are based on laboratory conditions (20°C ±2 and 65% humidity) and may vary under actual application conditions. To determine specifications under specific conditions, preliminary suitability tests should be performed under actual application conditions.*

#### PRODUCT CHARACTERISTICS:

<b>Cleaning agent</b>	MC-Thinner EP Water or water based cleaners must not be used under any circumstances.
<b>Color</b>	Available in desired Shades.
<b>Packaging</b>	5 kg and 20kg/ pack.
<b>Shelf-life and storage</b>	Can be stored in original sealed packages at temperature between +5°C and +25°C in dry conditions for at least one year. The same requirements are valid for Transport.
<b>Disposal</b>	Packs must be emptied completely.

**Note:** The information provided here is based on our experience and correct to the best of our knowledge. It is, however, not binding. It will need to be adapted to the requirements of the individual building projects, to the specific application and to non-standard local conditions. Our data refers to the accepted engineering rules, which have to be observed during application. Given these preconditions we shall be liable for the accuracy of the information given as outlined in our sales and delivery terms and conditions. Recommendations by our employees that deviate from this information are only binding for us if they have been confirmed in writing. In all cases, the generally accepted rules and practices reflecting the current state of the art must be adhered.

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