

# Emcoril Protect M

## Concrete curing as evaporation protection for general concrete constructions

### Product Properties

- Ready-to-use, water-based paraffin dispersion
- Exceptionally high level of evaporation protection especially for warm summer conditions
- Exceptionally strong barrier effect
- Facilitates optimum hydration progress in the concrete layer close to the surface
- Minimises the occurrence of early shrinkage cracks
- Decreases the rate of carbonation
- Film-forming and fast drying
- Solvent-free
- Sprayable
- Low emission level acc. to AgBB
- Tested acc. to RVS 11.06.42
- Tested acc. to ASTM C 309, Type 1, Class A
- Certified as a concrete curing acc. to TL NBM-StB 09, Type BM

### Areas of Application

- Curing of freshly laid concrete acc. to the German code TL NBM-StB 09, Type BM for non-trafficable surfaces without grip requirements
- Concrete curing acc. to RVS 11.06.42 and ASRM C 309, Type 1, Class A
- Evaporation protection for general concrete constructions, e.g. slabs, walls, foundations, columns
- Evaporation protection for indoor and outdoor concrete
- For application on fresh, matt-damp concrete\*

### Application Instructions

#### General

Emcoril Protect M forms a protective film on the concrete surface, extensively inhibiting evaporation of the water during the decisive hardening phase. Its strong barrier effect ensures optimum hydration progress in the concrete layer close to the surface. As a result, good strength development is achieved and the occurrence of early shrinkage cracks is minimised. Any puddles and pools of water must be removed before application.

#### Application Methods

Emcoril Protect M is sprayed onto the matt-damp, fully compacted and rubbed or smoothed concrete surface to produce an even coating. The quantity applied must be as specified.

Emcoril Protect M can be applied using MC-Spezialspritze or standard commercial pressure sprayers equipped with flat jet nozzles (e.g. MESTO 1423 80-04E). MC-Pump 1 canister sprayer, MC-Pump 2 drum sprayer and MC-Pump 3 backpack sprayer may also be used for the application work. When using these devices, ensure compliance with the MC-Pump equipment

planner.

To ensure even spray application, the distance between nozzle and concrete surface during spraying should be approx. 0.5 - 1 m.

#### Overcoating / Overworking

According to TL NBM-StB 09, curing/evaporation protection agents of type BM form a film which remains present and can only be removed, if required, by special measures. If the surface coated with Emcoril Protect M is to be subsequently coated with paint, sealants, coatings, etc., the film must be completely removed. Cold high-pressure water cleaning or blasting with solid abrasives is suitable for this purpose.

#### Further Information

The minimum concrete curing time depends on the exposure class, surface temperature and strength development. The relevant information can be determined from EN 13670/DIN 1045-3. However, Emcoril Protect M does not provide thermal protection (e.g. from cooling, high temperatures or extreme temperature changes).

## Technical Properties of Emcoril Protect M

Characteristic	Unit	Value*	Comments
Density	kg/dm <sup>3</sup>	approx. 0.98	
Barrier coefficient	%	approx. 87 approx. 98/97/95	after 1d acc. to TL NBM-StB 09 after 1d/3d/7d acc. to RVS 11.06.42
Water loss	kg/m <sup>2</sup>	0.54	after 3d acc. to ASTM C 309
Consumption	g/m <sup>2</sup>	150 - 200	
Drying time	hours	approx. 4.5	Tack-free
Viscosity	s	11	Kinematic acc. to DIN 53211 - 4 mm
Application conditions	°C	≥ + 5 - ≤ + 40 ≥ + 5 - ≤ + 25	Air, substrate temperature Material temperature (protect from sun!)

## Product Product Features of Emcoril Protect M

Self-monitoring	EN ISO 9001
Third-party monitoring	MPA Karlsruhe
Equipment cleaning agent	Water
Colour	Milky white
Form	Liquid
Packaging	30 kg canisters 200 kg drums 1,000 kg containers (on request)
Storage	Keep free from frost and direct sun! Shelf life 12 months if stored dry in original containers
Disposal	In the interest of the environment, please ensure the containers are empty and residue-free prior to appropriate disposal.

\* As soon as the visible film of water has disappeared and the concrete surface appears matt-damp.

\*\* All technical values are laboratory results determined at conditions required by TL NBM-StB, RVS 11.06.42, ASTM C 309.

### Safety Advice

Please note the safety information and advice given on the packaging labels and safety data sheets.  
GISCODE: NBM 10; water hazard class: 1

**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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