

# 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 06.42
- Tested 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 ADVICE

**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 VALUES & PRODUCT CHARACTERISTICS

Characteristic	Unit	Value	Comments	
Density	kg/dm <sup>3</sup>	approx. 0.98		
Viscosity	seconds	11	kinematic to DIN 53211	
Application conditions	°C	≥ 5 ≤ 40	air and substrate temperatures	
		≥ 5 ≤ 25	material temperature (protect from the sun)	
Consumption	g/m <sup>2</sup>	150 - 200		
Drying time	hours	4.5	tack-free	
Water loss	kg/m <sup>2</sup>	0.54	ASTM C 309	
Barrier transmission coefficient	%	approx. 87	TL NBM-StB 09	
			RVS 11.06.42	
			24 h	98
			72 h	97
7 d	95			

All technical values are laboratory results determined at 21°C ±2°C and 50% relative humidity.

Self-monitoring	EN ISO 9001
Equipment cleaning agent	water
Colour	milky white
Form	liquid
Delivery form	30 kg canister(s) 200 kg drum 1,000 kg containers (on request)
Storage	Can be stored in cool and dry conditions for at least 12 months in original unopened packs. Protect from frost.
Packaging disposal	Make sure single-use containers are completely empty.

### Safety instructions

Please note the safety information and advice given on the packaging labels and safety data sheets. GISCODE : NBM10

**Note:** The information contained in this data sheet is based on our experience and is correct to the best of our knowledge. It is, however, not binding. It will need to be adapted to the requirements of the individual structure, to the specific application and to non-standard local conditions. Application-specific conditions must be checked in advance by the planning engineer/specifier and, where different from the standard conditions indicated, will require individual approval. Technical advice provided by MC's specialist consultants does not replace the need for a planning review by the client or its agents in respect of the history of the building or structure. Subject to this prerequisite, we are liable for the correctness of this information within the framework of our terms and conditions of sale and delivery. Recommendations of our employees deviating from the information given in our data sheets are only binding for us if they are confirmed in writing. In all cases, the generally accepted rules and practices reflecting the current state of the art must be observed. The information given in this technical data sheet is valid for the product supplied by the country company listed in the footer. It should be noted that data in other countries may differ. The product data sheets valid for the relevant foreign country must be observed. The latest technical data sheet shall apply to the exclusion of previous, duly superseded versions; the date of issue in the footer must be observed. The latest version is available from us on request or may be downloaded from our website. [2300018513]