



Emcoril

The new system for individual
concrete curing applications

EXPERTISE
CURING & RELEASE AGENTS

MC
BE SURE. BUILD SURE.





Protected Concrete Is Properly Durable

Concrete surfaces often need to exhibit a high-grade quality as well as serving their structural or containment functions. However, with construction speed ever increasing, rapid hardening has also become a must. In case of fast evaporation the hydration process will invariably bring to a premature halt, leading to the danger of concrete uneven drying and volume shrinkage. Such phenomena give rise to microstructure flaws and residual stresses which, in turn, lead to cracking and even cavitation or spalling. Occurring initially close to the surface, such defects may propagate or recur through the full cross section. To counteract this damage mechanism, early, uninterrupted and appropriately extended curing of the fresh concrete is essential.

Common curing methods to prevent premature drying include covering the concrete surface with sheeting or jute mats, continuous spraying with water, keeping in the formwork, or a combination of these. However, such methods entail considerable personnel expense, high acquisition and disposal costs as well as the costs associated with the formwork. By contrast, the application of liquid curing agents is both simple and effective.

MC-Bauchemie develops highly effective curing products for concrete construction, offering expertise beyond that merely related to reliable product formulation and manufacture.

We also provide individual support on site as additional assurance. A smooth concreting process with curing protection ensures optimum quality and durability, creating satisfaction and loyalty among your clients.

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Liquid Sheeting for Your Concrete

The **Emcoril portfolio** includes highly effective paraffin- and polymer-based curing agents for tailored concrete protection.

The system is divided into three application-specific product lines: **Protect**, **Traffic** and **Compact**. Whether applied to fresh, matt-damp or freshly de-moulded concrete, the Emcoril system will invariably offer you the right product solution for your particular needs. The Emcoril range incorporates decades of experience combined with advanced materials engineering.

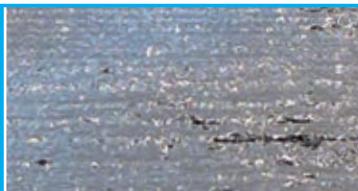
Emcoril Protect
for
building construction



Emcoril Traffic
for
road construction



Emcoril Compact
for
industrial flooring



Emcoril Protect M lite

Basic evaporation protection for non-trafficable surfaces

- Surface: matt-damp
- Water-based paraffin dispersion
- Barrier coefficient ($S_M \geq 60\%$)

Emcoril Protect M

Evaporation protection for non-trafficable surfaces

- Surface: matt-damp
- Water-based paraffin dispersion
- Barrier coefficient ($S_M \geq 85\%$)
- Certified to TL NBM-StB 09, Type BM

Emcoril Protect H

Evaporation protection for non-trafficable surfaces

- Surface: freshly de-moulded
- Water-based polymer dispersion
- Barrier coefficient ($S_E \geq 20\%$)
- Certified to TL NBM-StB 09, Type BE

Emcoril Traffic F

Surface retarder and temporary evaporation protection for trafficable surfaces without grip requirements

- Surface: freshly laid
- Water-based paraffin dispersion
- Barrier coefficient ($S_H \geq 75\%$)
- Certified to TL NBM-StB 09, Type AH

Emcoril Traffic grip M

Evaporation protection for trafficable surfaces with grip requirements

- Surface: matt-damp
- Water-based paraffin dispersion
- Barrier effect ($S_M \geq 85\%$)
- Certified to TL NBM-StB 09, Type VM

Emcoril Traffic grip M white

Evaporation protection for trafficable surfaces with grip requirements, increased lightness coefficient

- Surface: matt-damp
- Water-based paraffin dispersion
- Barrier coefficient ($S_M \geq 85\%$)
- Certified to TL NBM-StB 09, Type VM-W

Emcoril Compact pro

Temporary evaporation protection during the laying time, Smoothing aid

- Surface: freshly laid / matt-damp
- Water-based polymer dispersion
- Strong barrier effect
- In compliance with EN 13670 / DIN 1045-3

Emcoril Compact top

Final evaporation protection after smoothing

- Surface: step-resistant
- Water-based polymer dispersion
- Strong barrier effect
- In compliance with EN 13670 / DIN 1045-3



	Emcoril Protect M lite	Emcoril Protect M	Emcoril Protect H
Area of application			
Fresh concrete			
Matt-damp concrete	●	●	
Freshly de-moulded concrete			●
Evaporation protection			
Good	●		●
Outstanding		●	
Basis			
Polymer dispersion			●
Paraffin dispersion	●	●	
Benefits			
Evaporation protection	●	●	●
Certified surface quality		●	●
Overcoatable			●
Low-emission	●	●	●
Smoothing aid			
Removal			
Shot-blast cleaning	●	●	●
Pressure-jet cleaning	●	●	
Certification			
TL NBM-StB 09		●	●

Emcoril Protect

Concrete curing agents for building construction

Curing methods such as covering with vapour-tight sheet, applying water-retaining covers, continuous spraying with water or retention in the formwork are common in building constructions. However, the advantages of liquid curing agents – with the high level of assurance they offer after just a single application – are becoming increasingly recognised.

The requirements profile

The application time for curing agents in building construction varies depending on the use case. With **Emcoril Protect**, you can remain flexible. Simply select your curing agent as applicable for matt-damp or freshly de-moulded concrete surfaces. For good adhesion of subsequent coatings on vertical surfaces, use **Emcoril Protect H**.

High environmental compatibility and low emissions are particularly important in building construction projects – not a problem with **Emcoril Protect**!



The technology

Emcoril Protect is applied in a single coat to the concrete surface. It forms a continuous, impervious film to protect the surface of the green concrete from drying out. Early membrane formation allows the hydration process to progress smoothly and without interference, facilitating full attainment of specified performance parameters such as flexural strength, compressive strength and density. This curing treatment also produces higher surface tensile strength values as compared to untreated concretes.

With the **Emcoril Protect series** you achieve a surface finish of optimal quality (according to German code TL NBM-StB 09). Your concrete is rendered fully fit for purpose and properly durable.

Your benefits

- High level of evaporation protection
- Suitable for interior and exterior applications
- Low-emission
- Certified surface quality
- Can be sprayed or rolled on
- Certified to TL NBM-StB 09



	Emcoril Traffic F	Emcoril Traffic grip M	Emcoril Traffic grip M white
Area of application			
Fresh concrete	●		
Matt-damp concrete		●	●
Freshly de-moulded concrete			
Evaporation protection			
Good			
Outstanding	●	●	●
Basis			
Polymer dispersion			
Paraffin dispersion	●	●	●
Benefits			
Evaporation protection	●	●	●
Certified surface quality	●	●	●
Overcoatable			
Low-emission	●	●	●
Smoothing aid			
Removal			
Shot-blast cleaning	●	●	●
Pressure-jet cleaning	●	●	●
Certification			
TL NBM-StB 09	●	●	●

Emcoril Traffic

Concrete curing agents for road construction

In practice, liquid curing agents are the only viable option in mechanised road construction. As these concrete surfaces are invariably laid with a road paver, the curing agents are applied immediately once the concrete has been modelled, using an integrated, permanently installed spraying device.

The requirements profile

Curing agents for road construction are formulated for a defined range of requirements. The aspects that come into play include:

Time of application – whether on the fresh or the matt-damp concrete.

Grip specifications – the micro roughness of the cured concrete surface after 28 days.

Lightness coefficient – white pigmented curing agents reduce the risk of additional heating of the concrete by solar radiation.

The technology

The uniform mechanical spraying of the curing agents results in a continuous film that extensively prevents water loss from the concrete by evaporation. Pigmented products like **Emcoril Traffic grip M white** additionally offer high sun ray reflection so as to restrict temperature rises in the laid concrete.

We recommend **Emcoril Traffic** for road curing without grip requirements and **Emcoril Traffic grip** for road curing with grip requirements. **Emcoril Traffic** – for enhanced concrete durability!

Your benefits

- High level of evaporation protection
- Strong reflection of sun radiation
(Emcoril Traffic grip M white)
- With and without grip requirements
- Applied by spraying
- Certified to TL NBM-StB 09





	Emcoril Compact pro	Emcoril Compact top
Area of application		
Fresh concrete	●	
Matt-damp concrete		
Step-resistant concrete		●
Evaporation protection		
Good		
Outstanding	●	●
Basis		
Polymer dispersion	●	●
Paraffin dispersion		
Benefits		
Evaporation protection	●	●
Certified surface quality		
Overcoatable	●	●
Low-emission	●	●
Smoothing aid	●	
Removal		
Shot-blast cleaning	●	●
Pressure-jet cleaning		
Certification		
TL NBM-StB 09		

Emcoril Compact

Concrete curing agents for industrial flooring

The requirements profile

Smoothed concrete used in industrial flooring often need to be ready for foot traffic after just three to four hours. It is absolutely essential to protect the concrete surface from premature drying for this initial laying time. Intermediate curing agents have become popular in floor-laying practice as a means of providing temporary protection. Their use not only reduces the evaporation rate but also greatly simplifies smoothing so as to deliver an optimum finish. An evaporation protection agent and smoothing aid in one, **Emcoril Compact pro** satisfies both requirements. Once the smoothed concrete reaches step resistance, a final curing agent, e.g. **Emcoril Compact top**, will need to be applied.

The technology

Liquid intermediate curing agents for industrial floor construction are ready for use in a single application directly after the concrete has been placed. They form an even, continuous film that significantly reduces the rate of evaporation of the water in the concrete during the waiting time. This type of products is very effective in supporting the smoothing process, enabling the creation of an even and compact industrial floor with helicopter trowel.

Emcoril Compact top is then applied for the final cure. The curing agent does not usually impair the adhesion of subsequent coatings to the concrete and therefore does not have to be removed.

Your industrial flooring concrete:

High performance and density, for sure.



Your benefits

- High level of evaporation protection
- Easy smoothing
- High surface quality
- Applied by spraying
- Good adhesion of subsequent coatings*

Emcoril

The new system for individual concrete curing applications

- Simple, reliable application
- High level of evaporation protection
- Solvent-free
- Low-emission

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