

# **Emcoril**

The new system for individual concrete curing applications







# **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

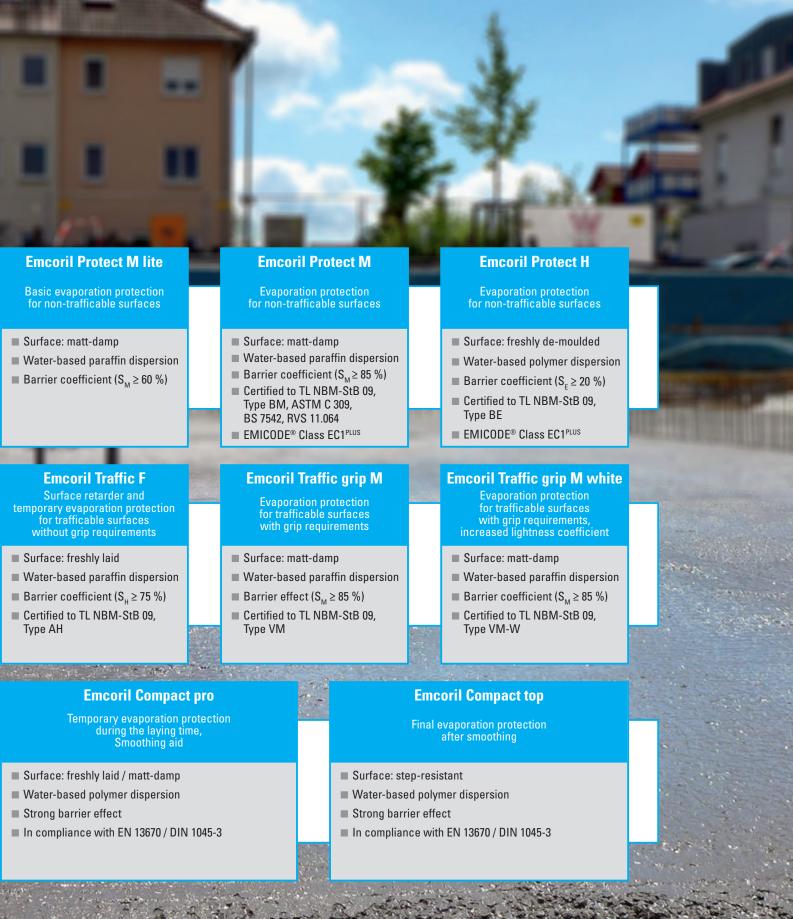


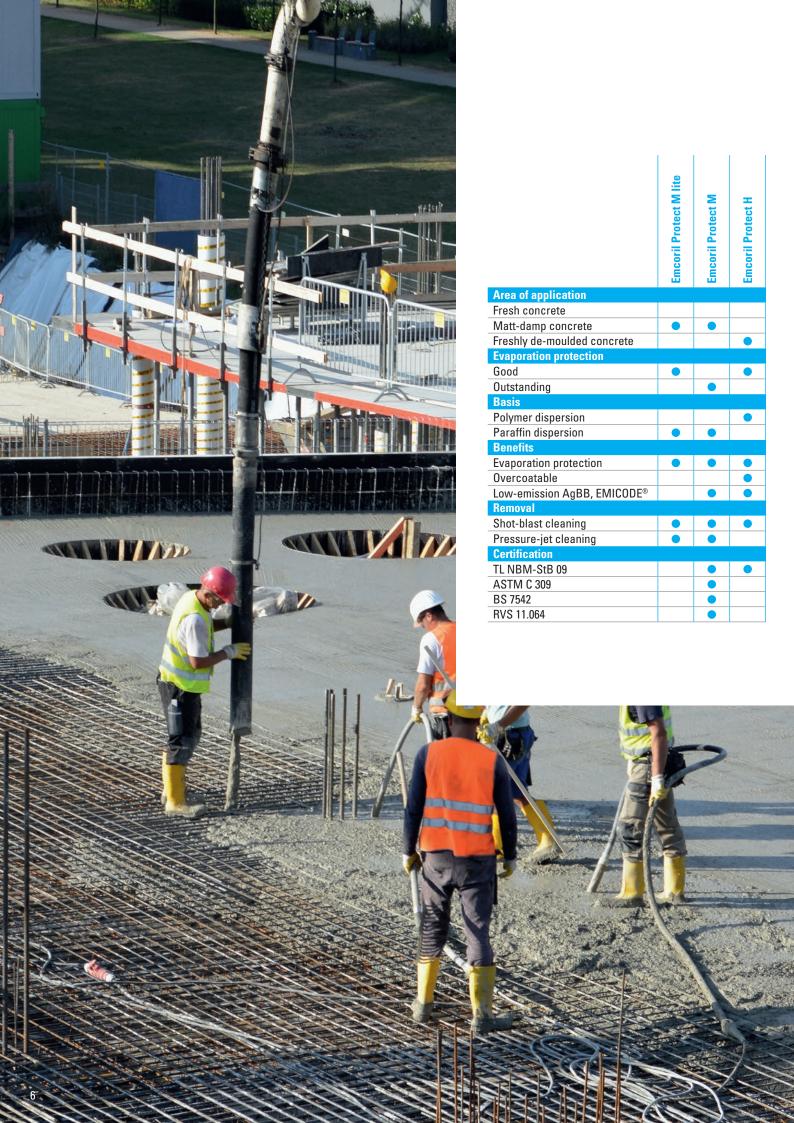
Emcoril Traffic for road construction



Emcoril Compact for industrial flooring







# **Emcoril Protect**

# **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 acc. to AgBB, EMICODE®
- Certified surface quality
- Can be sprayed or rolled on
- Certified to 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.

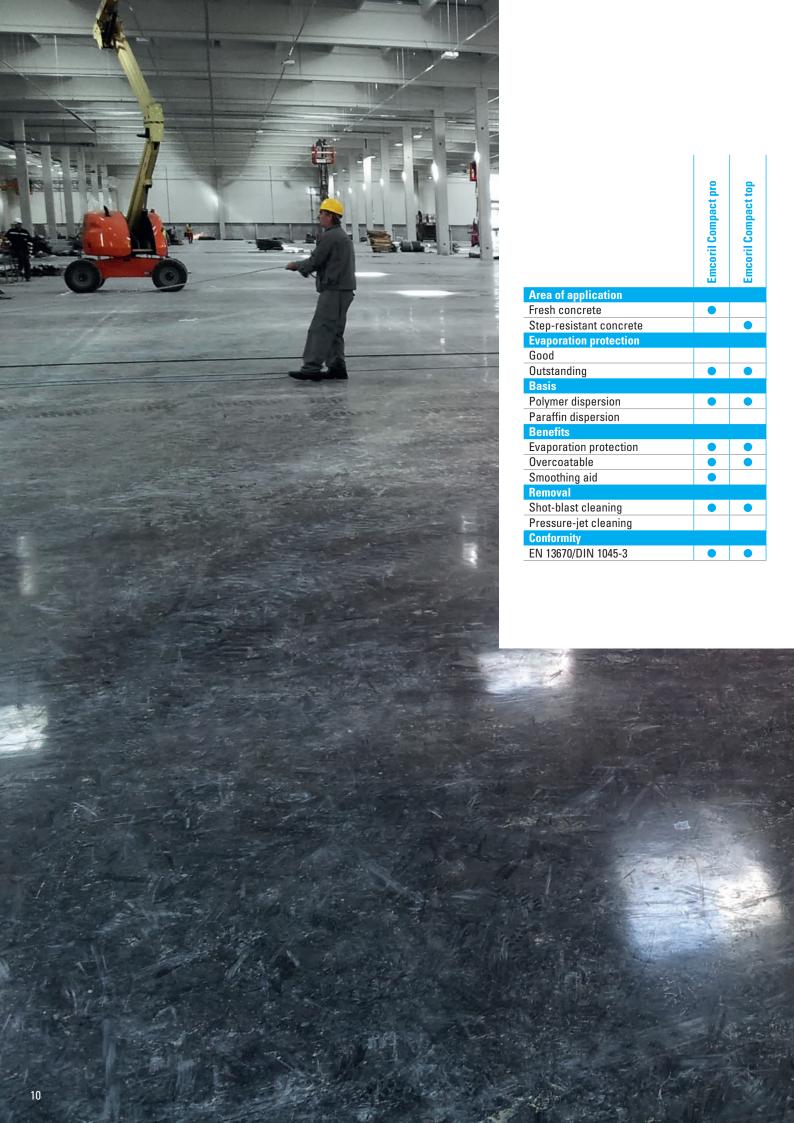
## The technology

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**

# **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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