

# BKM FS2

technical data sheet

Article-No.: P-001-223

## Product description

BKM FS2 is a durable, invisible protective coating on facades that is effective against soiling and moisture penetration.



Fig.1 Untreated facade. Water is absorbed by the building material.

Due to the "lotus effect" of the product, the facade does not absorb rainwater. Lime efflorescence, algae and moss growth and frost damage are also prevented.



Fig.2 Impregnated facade. Water beads off and the building material is dry.

BKM FS2 is breathable and therefore guarantees optimum moisture balance between the masonry and the interior. In addition, a dry facade significantly improves the thermal insulation of the entire house.

## Product advantages

BKM FS2 has neither pore-narrowing or pore clogging effect, which is why after the application of the active ingredient and drying of the facade, it retains or regains its natural thermal insulation. This result is achieved thanks to a special polymer dissolved in very thin and highly pure kerosene. The active ingredient as a whole, as well as its individual components, are safe for human and animal health.

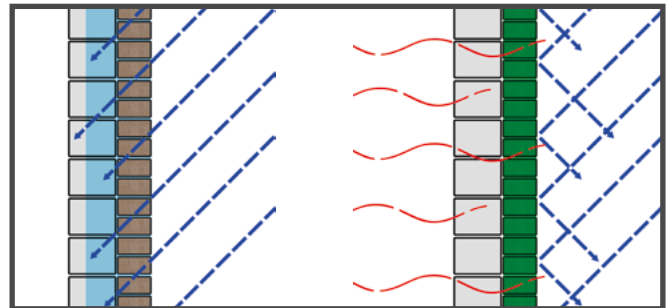


Fig. 3 Mode of action shown schematically.

The kerosene gradually evaporates completely again after application to the facade. At the end of the reaction time, there is only a permanent repellent and UV-stable polymer film on the pore walls of the masonry or plaster, similar to a paint finish. The result is the well-known lotus effect.

## Application areas

With the exception of gypsum and some natural stones, almost all minerals and absorbent substrates are suitable for impregnation. In other words, all building materials into which water can also penetrate. These include, among others:

- Porous clinker and hard-fired clinker
- Lime and calcareous sandstone
- Aerated concrete
- Exposed concrete
- Facade render
- Grout

## Product application

BKM FS2 is applied to the facade in a flood spraying process with a special flooding applicator and penetrates deep into the render or masonry due to its excellent absorbent properties. After a short reaction time, the so-called "lotus effect" is formed, which allows rainwater to simply roll off. In time, the

visible “lotus effect” (water beading off) diminishes somewhat due to environmental influences, but the facade nevertheless remains permanently water-repellent. The functionality of the impregnation can also be checked at any time with a so-called “Karsten tube”.

**Attention!** BKM FS2 is not suitable for use on external thermal insulation composite systems (ETICS)!

Only BKM FS Aqua (solvent-free facade water repellent) may be applied to ETIC systems.

### BKM FS2 against mould

A large part of the living moisture present indoors is released not only by regular ventilation, but also by diffusion of the water vapour from the inside to the outside through the masonry. A damp facade also restricts internal condensation from drying out and can in turn encourage mould growth on the inside walls. With a BKM FS2 facade impregnation, the facade remains dry even in the rain, the mould is deprived of water as a basis for life.



Fig. 4 Lotus effect after impregnation.

### BKM FS2 for energy saving

Due to the good conductivity of water, wet walls also emit a large part of the heating energy used for the living spaces to the outside via the facade. A wet facade insulates worse than a dry facade. Research into thermo-graphic examination of facades, identified that 10% wall moisture present, can cause up to 25% loss of thermal insulation. By impregnating with BKM FS2, the masonry no longer absorbs rainwater, the masonry spores remain filled with air and energy savings of up to 25% and more can be achieved.

## Comments

### Security

BKM FS2 is produced in Germany under the strictest quality conditions and is constantly tested and monitored for consistent quality and product excellence. To this end, BKM.MANNESMANN AG has defined its own product standards that are valid throughout Europe and vouches for their compliance with the BKM.MANNESMANN name.



Fig. 5 Thermal image of a facade.

### Consulting

Moisture damage can only really be successfully repaired if its cause has been carefully investigated. Your BKM.MANNESMANN partner not only looks at the visible damage on the surface. With his electronic measuring instruments, he also checks the course of moisture in the wall, among other things. Once the extent and cause of the damage have been determined, our partner will explain to you on site how he can permanently eliminate the damage with BKM FS2 products.

### Legal notice

The above information, in particular the suggestions for processing and use of our products, are based on our knowledge and experience under normal circumstances, provided that the products have been stored and applied correctly. Due to the different materials, substrates and divergent working conditions, a guarantee of a working result or a liability, regardless of the legal relationship, cannot be justified on the basis of these instructions or verbal advice, unless we are accused of intent or gross negligence in this respect. In this respect, the user must prove that all knowledge necessary for a proper and promising assessment by BKM was provided to BKM in writing, in time and in full. The user must check the suitability of the products for the intended application. We reserve the right to make changes to product specifications.

Proprietary rights of third parties must be respected.

The latest product data sheet applies and must be requested from us. The responsibility for the successful application of our products lies with the user, as the use is beyond our control. However, we ensure the quality of our products in accordance with our conditions of sale and delivery, without guaranteeing the success of their application. Our data sheets represent advice based on our best knowledge, but no obligation can be derived from them. Our written consent is required to guarantee properties and application possibilities that go beyond the information recorded in the data sheets.

**Further information can be found at:**

[www.bkm-mannesmann.de](http://www.bkm-mannesmann.de)