

Acrylic resin based multi-role curing, sealing and protective membrane for concrete

Description of Product

MASTERKURE[®] 181 is a non-degrading, membrane forming liquid based on acrylic resin suitable for spray application to freshly poured concrete.

The resultant film retains sufficient moisture in the concrete to ensure full hydration of the cement; essential for optimum strength development and durability. The cured concrete is typically harder and exhibits a dust free surface with a reduced incidence of drying shrinkage cracks.

Additionally, the membrane acts as a primer system for many subsequent surface finishes that do not rely on penetration for substrate bond. When applied to floors, the MASTERKURE[®] 181 seals and dustproofs the surface enhancing durability.

MASTERKURE[®] 181 conforms to the requirements of:

- ASTM C309: Type 1 Class B
- AASHTO M-148 Type 1

Fields of Application

As a more effective and economical alternative to separate curing and priming/sealing regimes. Suitable for use on all concrete surfaces.

- Surfaces subject to finishing treatments.
- Economical enhancement of concrete flatwork.
- In high-rise construction to eliminate the requirement for water curing.

Features and Benefits

- Eliminates the need for water curing.
- Imparts a harder dust free surface.
- Non-degrading, acts as a primer system.
- Minimal delay for over coating etc.
- Improves abrasion resistance of floors.
- High curing efficiency >70%.
- Reduced labour costs and economic in use.
- Reduces chloride penetration.

Technical Data/Typical Properties

Appearance	Clear liquid
Specific gravity @ 20°C	0.82 g/cm ³
Finished Film Appearance	Clear, tack free, water repellent film
Water Retention ASTM C156	Pass
Curing Efficiency	>70%
Drying Time @ 20°C	45 minutes

Application Procedure

The compound should be spray applied as evenly as possible to the freshly placed concrete.

For horizontal surfaces the MASTERKURE[®] 181 should be applied as soon as the initial surface sheen has disappeared from the concrete face. In the case of formed concrete, the product should be applied immediately on removal of the formwork.

Subsequent Surface Finish

The acrylic resin in MASTERKURE[®] 181 ensures that bond is maintained with adhesives used for installing tiles, and other floor coverings. MASTERKURE[®] 181 will act as a primer for paint systems and will enable most surface treatments to progress with minimal delay. Typical surface treatments that will bond to surfaces with MASTERKURE[®] 181 are:

The Chemical Company

- Water based emulsion paints containing PVA, PVC, acrylic co-polymers.
- Tile adhesives based on the above polymers
- Bituminous emulsions and solutions
- Polymer modified cement systems
- Epoxy resin compositions, which do not rely on penetration for substrate bond.

Curing/After Treatment - Typical Specification

Where indicated, concrete shall be cured by application of MASTERKURE[®] 181, curing compound based on acrylic resin manufactured by BASF Construction Chemicals (UK) Ltd, or similar approved, to the following specifications:

- ASTM C309: Type 1 Class B,
- AASHTO M-148 - Type 1

Coverage

The recommended rate of application is 4.5 to 5.5 square metres per litre. This corresponds to that at which MASTERKURE[®] 181 has been tested, and at which it attains the claimed degree of curing efficiency. In favourable conditions such as shaded interior surfaces, adequate curing can be achieved with extended coverage rates.

When using MASTERKURE[®] 181 for floor areas where maximum chemical and wear resistance is required, it is recommended that further coats (1 or 2 as desired) be applied after 24 hours.

Cleaning

Clean all spray equipment, particularly nozzles using MASTERKURE[®] SOLVENT or white spirit. It is advisable when a spray nozzle is not in use to leave it immersed in solvent.

Packaging

MASTERKURE[®] 181 is supplied in 25 litre cans and 205 litre drums.

Storage

Store in cool conditions away from direct sunlight. Avoid sources of ignition - **No Smoking**. Flammable liquid.

Note: If stored below 10°C MASTERKURE[®] 181 may go cloudy and separate. However, on warming and agitation product will reconstitute.

Shelf Life

Minimum two years when stored in unopened containers according to manufacturer's instructions.

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Health and Safety

*For full information on Health and Safety matters regarding this product the relevant Health and Safety Data Sheet should be consulted.

The following general comments apply to all products.

As with all chemical products, care should be taken during use and storage to avoid contact with eyes, mouth, skin and foodstuffs, (which may also be tainted with vapour until the product is fully cured and dried). Treat splashes to eyes and skin immediately. If accidentally ingested, seek medical attention. Keep away from children and animals. Reseal containers after use.

Spillage

Chemical products can cause damage; clean spillage immediately.

DISCLAIMER

"BASF Construction Chemicals (UK) Limited" (the Company) endeavours to ensure that advice and information given in Product Data Sheets, Method Statements and Material Safety Data Sheets (all known as Product Literature) is accurate and correct. However, the Company has no control over the selection of its products for particular applications. It is important that any prospective customer, user or specifier, satisfies him/her-self that the product is suitable for the specific application. In this process, due regard should be taken of the nature and composition of the background/base and the ambient conditions both at the time of laying/applying/installing the material and when the completed work is to be brought into use.

Accordingly, no liability will be accepted by the Company for the selection, by others, of a product, which is inappropriate to a particular application.

Products are sold subject to the Company's standard conditions of sale and all customers, users and specifiers, should ensure that they examine the Company's latest Product Literature.