

MASTERKURE[®] 181

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

Description

MASTERKURE[®] 181 is a non-degrading, membrane-forming liquid based on acrylic resin suitable for spray application to freshly poured concrete. MASTERKURE[®] 181 is available as a clear opaque liquid and white solar reflective version.

The resultant film retains sufficient moisture in the concrete to ensure full hydration of the cement; essential for optimum strength development. 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, eliminating the primary source of abrasion and enhancing durability.

Typical applications

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.

Advantages

- Eliminates the need for water.
- Imparts a harder dust free surface.

- Does not support the growth of bacteria.
- Non degrading, acts as a primer system.
- Minimal delay for overcoating etc.
- Abrasion resistant floors.
- High curing efficiency.
- Reduced labour costs.
- Reduces chloride penetration.

Packaging

MASTERKURE[®] 181 is available in 210 litre drums.

*Typical properties

Appearance:	Clear/Opaque liquid
Specific gravity:	Clear 0.810 at 25°C
	White 0.858 at 25°C
Flashpoint:	35°C (PMCC)
Finished film appearance:	Clear or White, tack free, water repellent film
*Water Retention (ASTM C309):	Pass
*Drying Time (ASTM C309):	1 hour and 45 mins at 23°C

* Result available for the Clear variant

Standards

ASTM C309 Type 1 Class B

Directions for use

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.

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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 a further coat be applied after 24 hours.

Subsequent surface finishes

The acrylic resin in MASTERKURE[®] 181 ensure 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:

- Water based emulsion paints containing PVA, PVC or acrylic co-polymers.
- Tile adhesives based on the above polymers.
- Bituminous emulsions and solutions.
- Thin section polymer modified cementitious systems.
- Polyurethane resin systems.
- Polysulphide systems.
- Epoxy resin compositions which do not rely on penetration for substrate bond.

For further information regarding compatibility of MASTERKURE[®] 181, contact BASF UAE's Technical Services Department.

Specification clause

MASTERKURE[®] 181

Where indicated, concrete shall be cured by application of MASTERKURE[®] 181, curing compound based on acrylic resin manufactured by BASF UAE or similar approved; to the following specification:

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

MASTERKURE[®] 181 is to be applied at a coverage rate of 4.5 to 5.5 square metres per litre and strictly in accordance with the manufacturer's instructions.

Storage

Store under cover, out of direct sunlight and protect from extremes of temperature.

Failure to comply with the recommended storage conditions may result in premature deterioration of the product or packaging. For specific storage advice consult BASF's Technical Services Department.

Safety precautions

As with all chemical products, care should be taken during use and storage to avoid contact with eyes, mouth, skin and foodstuffs. Treat splashes to eyes and skin immediately. If accidentally ingested, seek medical attention. Reseal containers after use. Use in well ventilated areas and avoid inhalation. For further information refer to the material safety data sheet.



The Chemical Company

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Note

Field service, where provided, does not constitute supervisory responsibility. For additional information contact your local BASF representative.

BASF reserves the right to have the true cause of any difficulty determined by accepted test methods.

Quality and care

All products originating from BASF's Dubai, UAE facility are manufactured under a management system independently certified to conform to the requirements of the quality, environmental and occupational health & safety standards ISO 9001, ISO 14001 and OHSAS 18001.

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* Properties listed are based on laboratory controlled tests.

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As all BASF technical datasheets are updated on a regular basis it is the user's responsibility to obtain the most recent issue.

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