

# MASTERKURE<sup>®</sup> 181

(Formerly sold as Febcure Clear)

## Acrylic Resin Based Multi-Role Curing, Sealing And Protective Membrane For Concrete

### Description of Product

MASTERKURE<sup>®</sup> 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<sup>®</sup> 181 seals and dustproofs the surface enhancing durability.

MASTERKURE<sup>®</sup> 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 overcoating 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	0.82 at 20°C
Finished film appearance	Clear, tack free, water repellent film
Water Retention: ASTM C156	Pass
Curing Efficiency BS 7542	>70%
Drying Time	45 mins at 20°C

### Application Procedure

#### Application

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

For horizontal surfaces the MASTERKURE<sup>®</sup> 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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### 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:

- 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 MBT Feb, or similar approved, to the following specification:

Specification Type: 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 and 205 litre drums.

### Storage

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

NB: 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 the manufacturer's instructions.

MASTERKURE® 181 Degussa Construction Chemicals UK Version 3

**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.

**Solvent Based Products**

Use in well ventilated areas; avoid inhaling. Suitable respiratory equipment may be needed, eg when spraying. Can cause skin, eye irritation. Wear protective eye shields and gloves during use. Do not smoke or allow sparks or naked lights when stored or in use.

**Powder Products**

Should be handled to minimise dust formation; use light mask if excessive dust unavoidable. Cement powders when wet or moistened can cause burns to skin and eyes which should be protected during use.

**Resin Products**

Can cause irritation, dermatitis or allergic reaction. Use protective equipment particularly for skin and eyes. Use only in well ventilated areas.

**Spillage**

Chemical products can cause damage; clean spillage immediately.

**Disclaimer:**

This information and all further technical advice is based on our present knowledge and experience. However, it implies no liability or other legal responsibility on our part, including with regard to existing third party intellectual property rights, especially patent rights. In particular, no warranty, whether express or implied, or guarantee of product properties in the legal sense is intended or implied. We reserve the right to make any changes according to technological progress or further developments. The customer is not released from the obligation to conduct careful inspection and testing of incoming goods. Performance of the product described herein should be verified by testing, which should be carried out only by qualified experts in the sole responsibility of a customer. Reference to trade names used by other companies is neither a recommendation, nor does it imply that similar products could not be used.

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