

MASTERKURE™ 181

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

Description

MASTERKURE 181 is a non-degrading, membrane-forming liquid based on specially formulated acrylic resin suitable for curing newly placed or freshly deshuttered concrete; assists in the retention of water during hydration. 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 dustproof the surface, eliminating the primary source of abrasion and enhancing durability.

MASTERKURE 181 is available as a clear translucent liquid and white solar reflective version.

Uses

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

- Improves moisture retention in concrete
- Prevents rapid water evaporation
- Sealer & dustproof
- Good abrasion resistance – long protection
- Reduces drying shrinkage
- Reduces the incidence of hairline cracks
- High curing efficiency
- Available in Solar reflective grade
- Non – degrading – no removal required
- Act as primer for protective coatings & bitumen

Typical properties

Appearance		: Clear/white liquid
Specific gravity	Clear	: 0.82 ± 0.01 at 25° C
	White	: 0.855 ± 0.01 at 25° C
Flash point		: 30°C
Dry film appearance		: Clear or white
Loss of Water (ASTM C156)		: < 0.55 kg /m ²
Drying time (ASTM C309)		: 45 mins at 25°C

Standards

- Clear version - ASTM C309 Type I Class B
- White version - ASTM C309 Type II Class B

Specification clause

The non-degrading membrane forming curing & sealing compound shall be MASTERKURE 181, acrylic resin based formulation. The product shall comply with ASTM C 309 Class B. The product shall exhibit water loss not more than 0.55 kg/m² in 72 hours when tested as per ASTM C156. The product shall form non-degrading abrasion resistance film which shall also exhibit capability as primer for subsequent protective coatings or bituminous overlays.

Directions for use

Surface Preparation

NEWLY PLACED CONCRETE:

Surface must be sound and properly finished. Surface is ready for application of MASTERKURE 181, when damp, but not wet, and it can no longer be marred by foot traffic.

NEWLY CURED BARE CONCRETE:

Level any gouges. Remove all dirt, dust, oil, grease, asphalt, and foreign matter. Clean with caustics and detergents as required. Citrus degreaser is excellent for removing oil stains and many curing compounds. Rinse thoroughly and allow to dry. Apply MASTERKURE 181 to damp but not wet surfaces.

AGED CONCRETE:

Restore surface to soundness by patching, grouting, and filling cracks or holes. Surface must also be free of any dust, dirt, and other foreign matter. Use power tools or strippers to remove any incompatible sealers or coatings. Clean as required, following procedure under "Newly cured bared concrete".

Application

Stir MASTERKURE 181 thoroughly before using. Apply a continuous, uniform film by low-pressure spray, short nap roller or brush.

Application not recommended when surface temperature exceeds 40°C

Subsequent surface finishes

The 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 and 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 your local BASF Representative.

Cleaning

Use CLEANING SOLVENT NO. 2 to clean rollers and spray equipment before MASTERKURE 181 become dry. Any excess cured material will have to be mechanically removed.

Coverage

The recommended rate of application is 4-6 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.

In place of the above recommendations, the rates of cover stipulated in a specification should at all times be observed.

Packaging

MASTERKURE 181 is available in 5 & 20 litre packs.

Storage and Shelf life

MASTERKURE 181 must be stored where temperatures do not drop below +5°C. Store under cover, out of direct sunlight and protect from extremes of temperature.

Shelf life is 12 months when stored as above.

Failure to comply with the recommended storage conditions may result in premature deterioration of the product or packaging. For specific storage advice consult your local BASF representative.

Safety precautions

As with all chemical products, care should be taken during use and storage to avoid contact with eyes, mouth, skin and foodstuffs (which can also be tainted with vapour until product fully cured or dried). Treat splashes to eyes and skin immediately. If accidentally ingested, seek immediate medical attention. Keep away from children and animals. Reseal containers after use. Do not reuse containers for storage of consumable item. For further information refer to the material safety data sheet. MSDS available on demand or on BASF construction chemicals web site.

Note

All BASF Technical Data Sheets are updated on regular basis; it is the user's responsibility, to obtain the most recent issue.

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

Disclaimer

Whilst any information contained herein is true, accurate and represents our best knowledge and experience, no warranty is given or implied with any recommendations made by us, our representatives or distributors, as the conditions of use and the competence of any labour involved in the application are beyond our control.

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