

MasterProtect[®] 300

Pigmented, elastomeric and protective waterproof and anti-carbonation coating for concrete and concrete structures

DESCRIPTION

MasterProtect 300 is an elastomeric coating based on acrylic co-polymers. Applied as a liquid it cures to form a durable, protective, waterproof membrane.

It is a single component emulsion containing inert pigments suitable for application by brush, airless spray or roller.

MasterProtect 300 prevents chloride ion ingress. And exceeds all the requirements of a coating that resists carbonation.

PRIMARY USES

MasterProtect 300 is designed for the protection of concrete structures against carbonation and chloride laden water ingress (above grade). The product is also suitable as a seamless and elastomeric waterproofing coating for timber, fibre cement and zinc sheets, asphalt, built-up roofing felt and tiles.

Areas of application are:

- Concrete repairs.
- Marine environments
- Bridge and highway structures
- Underpasses.
- Multi storey car parks.
- Commercial buildings.
- Industrial buildings.
- Waterproofing a variety of substrates.
- Flat roofs and sloping roofs

ADVANTAGES

- Elastomeric - capable of bridging cracks.
- Easily applied by roller, brush or airless spray.
- Provides barrier against salts and atmospheric gases.
- Waterproof - protects concrete from waterborne salts.
- U.V. stable - maintains its appearance.

PACKAGING

MasterProtect 300 is supplied in 20 litre pails

MasterProtect FL 100 - 25kg bags

MasterProtect FL 200 - 25kg bags

MasterKure 181S - 210 litre drums

MasterKure 181 - 200 litre drums

MasterTile P 302 - 20 litre pails

TYPICAL PROPERTIES*

Relative density	1.38 at 25°C
Solids content by volume	62%
Solids content by weight	73%
Reduction in chloride ion ingress @ 28 days	97%
Water vapour transmission ASTM E96	26gms/m ² /24 hours
Chloride penetration after 2000hrs accelerated weathering AASHTO T259, T260	No penetration
Carbon dioxide diffusion after 2000 hrs accelerated weathering	R (m) value at 400 microns DFT greater than 200m
Chemical resistance	Resistant to spillage of gasoline, diesel, sewage, weak acids and alkalis
Colours	Light Ivory, Grey, Dark Grey & White Other colours available upon request
Appearance after 2000hrs accelerated weathering	No colour change, cracking, chalking or blistering observed
Pull Off Strength ASTM D4541	>1N/mm ²
Determination of chloride ion diffusion	No chloride ion diffusion after 6 months
Rapid Chloride permeability AASHTO T277	very low
Fire Testing BS 476 Part 6 & 7	Class 1
Determination of solar reflectance index	>85%

Note: Take all necessary precautions when potentially faced with high application temperatures and humidity of more than 80%, consult BASF Technical Services department for further assistance.

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APPLICATION PROCEDURE

MasterProtect 300 can be applied by brush, roller or airless spray equipment. For airless spray application dilute with 7% (1.4 litre/20 litre unit) by volume of potable water. Use a tip size of 19-23 thou.

SURFACE PREPARATION: CONCRETE

All concrete surfaces should be treated to achieve a sound, clean surface free from laitance, oil, grease, mould release agent, residual curing compound, dust or other contaminants that could impair adhesion.

PRIMING

All external surfaces should be primed with **MasterKure 181S** or **MasterKure 181** applied at approximate rate of 5m²/litre, to eliminate excessive suction and promote adhesion. In temperatures >25°C, application should be made a minimum of three hours before applying the **MasterProtect 300** coating. In cold, humid conditions 24 hours is required to ensure full solvent release.

For internal surfaces such as car park walls, columns and soffits **MasterTile P 302** may be used as an alternative primer. Please go to the latest **MasterTile P 302** datasheet for application rates and details.

Coating the concrete at an early stage prevents penetration of deleterious salts.

FILLER / SCRAPE COAT

Surface depressions, blow holes, aggregate pop-outs etc., may be rectified with:

MasterProtect FL 100 - Used for application to external and internal surfaces if required.

MasterProtect FL 200 - Used for applications to **internal concrete / masonry surfaces ONLY**.

The appropriate filler is tightly scraped onto the primed and dry surface to be over-coated, paying particular attention to ensure blemishes are filled. Deeper aggregate pop-outs may require filling in two layers.

The treated surface should be left to cure until the deepest depressions are dry to the touch before overcoating.

APPLICATION

Apply in one or more coats ensuring a continuous even film. The finish may be textured if desired.

SURFACE PREPARATION: ROOF WATERPROOFING

Surfaces to be treated should be clean and dust free. All traces of oil, grease, mould release agent and residual curing compounds should be removed together with any other contaminant that could impair adhesion. Previous waterproofing treatments should be either completely removed or repaired. Cracked, broken, slipped or missing tiles, sheets, slates or other forms of covering must be replaced or refixed. Cracks in asphalt or built-up felt systems should be filled with mastic and allowed to cure.

APPLICATION

MasterProtect 300 is applied to the prepared surface in two coats, the first being allowed to dry, before the second is applied.

In hot dry climates, application will be assisted by dampening brushes.

Where the roof is in poor condition, or where substantial movement is expected in the roof structure, apply a sandwich system incorporating reinforcing fabric.

In this application, the fabric is bedded into the wet film of the first coat of **MasterProtect 300** using a charged brush. Ensure that full contact is achieved and there is no air entrapped. Apply a second coat of **MasterProtect 300** when the first has dried, at right angles to the first.

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WEATHER CONDITIONS

MasterProtect 300 is not resistant to rain until the film has dried. This may take less than 30 minutes in hot dry climates and up to 24 hours in temperate humid conditions. Generally the product should not be applied in rain or if rain is forecast. Similarly, **MasterProtect 300** will freeze in its wet state so should not be applied to frozen substrates or when the temperature is below 5°C or likely to fall during application.

COVERAGE

Approximately 0.64 litre/m² to achieve a DFT of 400 microns (applied in a minimum of two coats). Wet film thickness per coat ± 320 microns. This is the recommended application thickness at which all physical properties have been tested.

Minimum coverage: 0.40 litre / m² to achieve a single DFT of 250 microns.

STORAGE

Store under cover out of direct sunlight and protect from extremes of temperature. If stored at high temperatures or high humidity levels, the shelf life of this product may be reduced.

Shelf life is 1 year.

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.

NOTE

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

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

QUALITY AND CARE

All products originating from MBCC'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.

* Properties listed are based on laboratory controlled tests.

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STATEMENT OF RESPONSIBILITY

The technical information and application advice given in this MBCC publication are based on the present state of our best scientific and practical knowledge. As the information herein is of a general nature, no assumption can be made as to a product's suitability for a particular use or application and no warranty as to its accuracy, reliability or completeness either expressed or implied is given other than those required by law. The user is responsible for checking the suitability of products for their intended use.

NOTE

Field service where provided does not constitute supervisory responsibility. Suggestions made by MBCC either orally or in writing may be followed, modified or rejected by the owner, engineer or contractor since they, and not MBCC, are responsible for carrying out procedures appropriate to a specific application.

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