

MasterProtect 300

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

MATERIAL 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, 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, chloride water ingress. The product is also suitable as a seamless and elastomeric waterproofing coating for timber, asbestos / fibre cement and zinc sheets, asphalt, built-up 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 containers.

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	26gms/m ² /24 hours
Chloride penetration after 2000hrs accelerated weathering	No penetration
Carbon dioxide diffusion after 2000 hrs accelerated weathering	R (m) value at 400 microns DFT greater than 200m
Water absorption	<1%
Application temperature (substrate)	5°C to 35°C
Chemical resistance	Resistant to spillage of gasoline, diesel, sewage, weak acids and alkalis
Colours	Grey (Other colours on request)
Appearance after 2000hrs accelerated weathering	No colour change, cracking, chalking or blistering observed

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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.

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

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.

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 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.

Coating the concrete at an early stage prevents penetration of deleterious salts. **MasterKure 181** is recommended for metal decks.

Filler / Scraper Coat:

Surface depressions, blow holes, aggregate pop-outs etc., may be rectified with MasterEmaco N Range.

The filler is tightly scraped onto the surface to be overcoated, 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.

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 put in order.

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.

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 0.64Lt/m² to achieve a DFT of 400 microns (applied in a minimum of two coats). Minimum coverage: 0.40 litre / m² to achieve a DFT of 250 microns.

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STORAGE

Store under cover, out of direct sunlight and protect from extremes of temperatures. Shelf life is 12 months from date of manufacture when stored in undamaged, unopened packaging.

Failure to comply with the recommended storage conditions may result in premature deterioration of the product or packaging. For specific storage advice consult Master Builders Solutions' 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

Technical support, where provided, does not constitute supervisory responsibility. For additional information contact your local MB Construction Chemicals Solutions South Africa (Pty) Ltd representative. MB Construction Chemicals Solutions South Africa (Pty) Ltd shall not be liable for technical advice provided.

MB Construction Chemicals Solutions South Africa (Pty) Ltd reserves the right to have the true cause of any difficulty determined by accepted test methods. Undertaking such tests is not, and shall not be deemed to be, an admission of liability or an assumption of any risk, loss, damage or liability.

QUALITY AND RESPONSIBLE CARE

All products originating from MB Construction Chemicals Solutions South Africa (Pty) Ltd are manufactured under a management system independently certified to conform to the requirements of the quality standards ISO 9001, environmental and occupational health and safety standards.

* Properties listed are based on laboratory controlled tests.

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