

MASTERSEAL[®] 300H

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

Description

MASTERSEAL[®] 300H 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.

MASTERSEAL[®] 300H prevents chloride ion ingress.

And exceeds all the requirements of a coating that resists carbonation.

Primary uses

MASTERSEAL[®] 300H 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

MASTERSEAL[®] 300H is supplied in 20 litre pails with a polyethylene liner.

MASTERSEAL[®] 300H Filler: 25kg bags

MASTERSEAL[®] Blow Hole Filler: 25kg bags

*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:	Light Ivory, Grey and White. Also available in other colours upon request
Appearance after 2000hrs accelerated weathering	No colour change, cracking, chalking or blistering observed

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Application procedure

MASTERSEAL[®] 300H 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 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 MASTERSEAL[®] 300H coating. In cold, humid conditions 24 hours is required to ensure full solvent release.

For applications requiring a silane siloxane priming agent – MASTERKURE 181S or MASTERSEAL 380 should be used at a coverage rate of 5m² per litre in a single coat.

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

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

Filler/scrape coat

Surface depressions, blow holes, aggregate pop-outs etc., may be rectified with MASTERSEAL[®] 300H mixed with MASTERSEAL[®] 300H Filler

added at 0.5-1kg / litre. The filler addition rate being dependent on surface and ambient conditions.

MASTERSEAL[®] BLOW HOLE FILLER may be used as an alternative preparatory surface leveller for minor surface defects. Please refer to MASTERSEAL[®] BLOW HOLE FILLER datasheet for coverage.

The mixed 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 or with a slightly stiffer mix.

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 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.

Application:

MASTERSEAL[®] 300H is applied to the prepared surface in two coats, the first being allowed to dry, before the second is applied.

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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 MASTERSEAL[®] 300H using a charged brush. Ensure that full contact is achieved and there is no air entrapped. Apply a second coat of MASTERSEAL[®] 300H when the first has dried, at right angles to the first.

Weather conditions

MASTERSEAL[®] 300H 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, MASTERSEAL[®] 300H 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.

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 6 months.

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 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.

12/94 BASF_CC-UAE revised 07/2010

* Properties listed are based on laboratory controlled tests.

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