

## TECHNICAL DATA SHEET

### DELTA PRIME MOISTURE BARRIER EPOXY

#### PRODUCT DESCRIPTION

DELTA PRIME MBE is a two component water based epoxy compound used as both a primer and moisture barrier for concrete and masonry surfaces. Primarily used to prevent moisture penetration and rising damp through mineral surfaces, DELTA PRIME MBE can be applied to damp surfaces and over freshly laid concrete ("green concrete"), screeds and renders with excellent hydrostatic pressure resistance. Low odour, non-flammable and zero VOC, Delta Prime MBE displays outstanding adhesion properties to concrete, brick, masonry, stone and timber surfaces. Once dried, it provides excellent moisture resistance in positive and negative applications, forming an excellent surface for finished decorative coatings, membranes and adhesives to be directly applied over. Suitable for internal, external, underground and immersed areas as a primer or protective coating.

Applications include:

- Moisture barrier/dry lining on negative sides of underground wall surfaces preventing ingress of moisture, e.g. lift pits, basement walls, tunnels, cellars, car parks, retaining walls etc.
- Protective primer over concrete and mineral surfaces that contain residual dampness. Enabling the application of membranes or finished coatings, preventing vapour blisters and de-bonding from the substrate.
- Low water vapour transmission protective coating over "green" or damp concrete.
- Protective moisture barrier against rising damp of floors, enabling direct adhesion of vinyl, carpet, tiles, timber, levelling compounds, screeds etc.
- Waterproof coating for potable water storage tanks.

#### PRODUCT FEATURES

- Non-flammable, low odour and low VOC
- Able to be applied to damp surfaces and freshly laid concrete
- Excellent resistance to hydrostatic pressure
- Potable water approved to AS4020
- Easy water clean up
- Pot life 1-2 hours (@ 25°C)
- Compatible surface for bonding a wide range of coatings and adhesives.

#### GENERAL APPLICATION DETAILS

- Surfaces must be clean, sound, stable and free of: loose foreign material; existing coatings; laitance; release agents; curing compounds and oil/grease residues. Smooth or polished concrete should be profiled by mechanical abrasion to promote optimal adhesion.
- In negative waterproofing or rising damp applications, efflorescence must be removed from the surface to enable maximum adhesion strength and resistance to hydrostatic pressure.
- Surface voids, cracks (non-movement), pitted areas, low points, holes or any deformed areas need to be repaired and filled/levelled. Repairs should be carried out using repair mortar or epoxy mortar repair systems to ensure the surface is made good before applying DELTA Prime MBE

*Note: It is recommended before commencing the application; that adhesion of products to be used (e.g. primers, membranes, coatings adhesives etc) is tested over a typical area of the prepared surface to ensure satisfactory adhesion. It is the responsibility of the applicator to carry this out and accept the substrate suitability before any application starts. Details contained in product data sheets are general in nature. For any situation or items not covered in this data sheet, it is the responsibility of the applicator to check with DELTA Technical Services before commencing the application.*

*Disclaimer: This Product Data Sheet (PDS) summarises our best knowledge of the product, including how to use and apply the product based on the information available at the time. You should read this PDS carefully and consider the information in the context of how the product will be used, including in conjunction with any other product and the type of surfaces to, and the manner in which, the product will be applied. Our responsibility for products sold is subject to our standard terms and conditions of sale. DELTA Construction Industries does not accept any liability either directly or indirectly for any losses suffered in connection with the use or application of the product whether or not in accordance with any advice, specification, recommendation or information given by it.*

## MIXING COMPONENTS:

- Both Part A and Part B should be stirred lightly to ensure a homogenous state before mixing commences.
- Measuring by volume, add equal parts of Part A and Part B into a clean pail or mixing container. Thoroughly mix the two components for approximately 3 minutes until a homogenous mix is formed, and best mixing is done at low-medium speed to ensure the desired blend.
- Measure the desired mix quantity to ensure only enough compound is formed that can be used within an hour of pot life. Allow the product to settle for 5-10 minutes after mixing before using.
- If applying over damp surfaces, these areas must be free of surface water. Cannot be applied over sitting water on the surface. If applying over dried surfaces, such as aged concrete, applying a water mist over the area is recommended to lightly dampen the surface.
- Applying onto floor areas, best results achieved using a squeegee or stiff nylon broom, working the Delta Prime MBE into surfaces, enabling optimum absorption and penetration into the substrate. Ensure any pinholes or voids are worked over when applying by broom or squeegee.
- Applying onto wall surfaces, a medium-long nap roller is recommended. Spraying is possible, need to ensure correct and uniform coverage if this option is to be considered.
- Best results always achieved with 2 coats. For rising damp or prevention of efflorescence, a minimum 1 coat application may suffice at 3.0m<sup>2</sup>/litre. For waterproofing or creating a moisture protective barrier on the negative side of walls, then a minimum of 2 coats is recommended at 3.0m<sup>2</sup>/litre per coat. Attention and care should be taken to ensure a uniform application and required coverage is achieved. If the recommended coverage hasn't been achieved in 2 coats, then further coats should be applied until the recommended coverage is formed.
- The first coat can be diluted; this is dependent upon surface porosity. 5% dilution is recommended on porous surfaces and up to 10% for denser surfaces. Dilution should only happen with the first coat, it is not recommended to dilute the 2nd coat.
- Once applied, allow 24 hours curing before the application of membranes, adhesives, mortars, levelling compounds and other coatings. Curing will be prolonged in cooler temperatures and in high humidity. It is not recommended to leave Delta Prime MBE for more than 72 hours before covering over with tiles, self-levellers etc. Complete cure is 7 days @ 25°C, 50% R.H.

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## OVERCOATING WITH LIQUID MEMBRANES AND PAINT FINISHES

Liquid and cementitious membranes and general paint coatings should be applied over the Delta Prime MBE within 72 hours of the dried film. If it exceeds 72 hours, clean the surface of all loose material/contaminants and apply one further coat of Delta Prime MBE and allow drying. Apply coating within 72 hours of the dried film.

## TILING AND CEMENT-BASED FINISHES

When tiling or applying cement-based floor toppings such as screeds or levelers directly over the Delta Prime MBE, apply 2 x coats of the Delta Prime MBE at coverage of 1L/3m<sup>2</sup> per coat. The second coat is to sand seeded by broadcasting a fine, dry sand into the wet coat at a rate of 750g/m<sup>2</sup> to achieve a minimum 90% coverage. Sweep/vacuum excess sand from the surface once cured. Apply toppings within 72 hours of the dried film.

## GENERAL TECHNICAL DATA

• Appearance:	Wet - Part A –White; Part B - White. DRY- Semi gloss, matt when aged
• Volume Solids:	48%
• Mixing ratio:	1:1 by volume
• Wet film thickness:	0.3mm per coat
• Pot Life:	1-2 hours @ 25 <sup>0</sup> C, 50% R.H.
• Recoat:	4 hours @ 25 <sup>0</sup> C, 50% R.H.
• Dry film	12 hours **
• Tiling/toppings	24 hours **
• Full cure:	7 days @ 25 <sup>0</sup> C, 50% R.H.
• VOC: (ISO 13741)	Nil *
• Hydrostatic pressure resistance	250kPa
• Water Vapour Transmission: ASTM E96	1.4g/24h/m <sup>2</sup> - 1 x coat 0.8g/24h/m <sup>2</sup> - 2 x coats @ 0.3mm DFT
• Adhesion to concrete: ASTM	1.06MPa

\* The VOC Content of Delta Prime MBE is below the maximum VOC Content for Architectural and Interior Sealants as required by Green Star Ratings tools Education v1, Healthcare v1, Industrial v1, Multi Unit Residential v1, Office Interiors v1.1, Office Design v2, Office v3, Office As Built v2 and Retail Centre v1

\*\*Drying: Based on normal ambient temperatures of 23°C and 50% RH, \*Temperature, humidity and porosity will vary dry times.

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## IMPORTANT NOTES

- Gloves and eye protection should be used when handling this material.
- Do not apply when surface temperature is below 10°C or above 35°C or when relative humidity exceeds 85%
- Keep containers in well ventilated areas, ensuring lids are correctly secured.
- Ensure adequate ventilation while using and avoid inhalation of any vapours.
- Not designed as a trafficable surface. Must be covered with suitable trafficable finishes
- Avoid spillage into water courses, drains where possible.
- Shelf life is 12 months

## PACKAGING

20 Litre kit: Supplied in 1 x 10L (Part A) and 1 x 20L (Part B) polypropylene pails.

## CLEANING

Clean surfaces, tools etc. with water or soapy water while in a wet state.

## STORAGE CONDITIONS

Store at room temperature

Avoid storing on direct concrete floor in freezing conditions

12 month shelf life (unopened)

Avoid storing in direct sunlight

## HEALTH & SAFETY

Gloves and protection should be used when handling this material. Keep containers in well ventilated areas ensuring lids are correctly sealed. Ensure adequate ventilation while using and avoid inhalation of vapours. For more information, refer to the relevant Safety Data sheets (SDS) available.

## DELTA Construction Chemicals

Telephone: +61 (2) 8605 9707, ABN: 16 633 007 995

Email: [enquiries@deltacc.com.au](mailto:enquiries@deltacc.com.au)

Website: [www.deltacc.com.au](http://www.deltacc.com.au)

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