



## CONSTRUCTION MATERIALS ALLIANCE CMA100 TECHNICAL DATA SHEET

### CMA00® ULTRA CLEARSEAL

Spray Applied Lifetime Waterproofing

Waterproof  Concrete. For life.

#### DESCRIPTION:

CMA100® reacts with calcium to form a water insoluble calcium silicate hydrate gel that seals the cracks, pores and capillaries of the concrete. It will seal cracks in the concrete up to 2.2mm and with most mix designs will remain reactive in the concrete to seal future hairline cracks on contact with water. CMA100® waterproofing is sprayed onto FULLY cured concrete. As a Liquid CHS waterproofing it forms a barrier inside the concrete: waterproofs and protects the concrete from corrosion and degradation for the design life of the structure.

#### WHY USE CMA100?

- CMA100® waterproofs for the life of the structure
- Permanently seals static cracks up to 2.2mm
- Seals future hairline cracks on contact with water with most mix designs
- Protects against water, chloride and sulphate ingress; increases resistance to chemical attack
- Hardens concrete to higher level (9 of Mohs scale) than granite (6-8 Mohs Scale=140MPA)
- Increases the bond of concrete to cementitious materials by 80%
- Does not require a screed
- Cannot be damaged on site by other trades
- Trafficable 2-6 hours after application
- Suitable for ponding water
- Non-toxic. Suitable for use with potable water
- No re-application needed for years to come
- Straightforward one coat application. No bonding issues as occurs with many membranes
- Environmentally friendly. May earn LEED points.
- Cost effective
- Super-fast application ensures faster project completion and saves \$\$\$

#### TYPICAL APPLICATIONS:

Because of its ability to withstand thermal stress and its super-fast application, CMA100® is particularly suitable for areas of exposed concrete such as:

- Car Parks
- Rooftops and podium decks
- Bridge decks
- Landscaped areas
- Wharfs
- Marine Structures
- Pre-cast Panels
- Driveways

#### APPLICATION:

##### EQUIPMENT

Application is by low pressure sprayer such as a backpack sprayer, or motorised pump, depending on the size of the project.

##### SUPER FAST APPLICATION

Typically, one person with a backpack sprayer can apply 1000m<sup>2</sup> per day and with a motorised pump can apply about 6000m<sup>2</sup> per day. Compare this to a membrane where one person can typically apply not more than 100m<sup>2</sup> per day. CMA100® is suitable for use on both horizontal and vertical surfaces.

##### COVERAGE

In general, usage will be around 1 litre to 5 square metres, however this will vary according to the MPa and finish of the concrete. High MPa concretes with a smooth finish may only use 1 litre to 6 square metres, whilst low MPa concretes with open pores may use 1 litre to about 4 square metres.

## APPLICATION GUIDELINES:

### APPLICATION METHOD

- CMA100® is suitable for use on properly vibrated structural concrete with a minimum of 20MPa.
- Apply at temperatures above +5°C. For application at temperatures above +40°C, contact CMA Technical Department for specific instructions.
- Prior to CMA100® application, remove any honeycombing by chipping out, applying CMA100 and filling with mortar.
- Apply to clean, dry, cured concrete.
- Remove materials which will retard penetration such as curing compounds etc
- Apply CMA100® until the concrete will accept no further product. If there are cracks, apply additional product at approximately 1 litre to 3 lineal metres. For large or difficult cracks apply DRIZORO Maxjoint Express.en the surface is touch dry (generally 2- 5 hours depending on climate), water abundantly. CMA100 “loves” water and provided the product has soaked into the concrete it cannot be over-watered.
- 24 hours after the first watering, water again very generously.
- 48 hours after the first watering, water again very generously.
- After application, the area can be ponded to verify performance.

**IMPORTANT NOTE:** The product MUST be watered within 6 hours of initial application, or it may not perform to specification and may need to be re-applied.

### APPLICATION TO VERTICAL SURFACES

Apply as per instructions above. However, instead of one coat at 1 litre to 5m<sup>2</sup>, do two coats at the rate of 1 litre to 10m<sup>2</sup>. Apply the first coat at 1 litre to 10m<sup>2</sup> then, before the product has dried, apply the second coat, also at 1 litre to 10m<sup>2</sup>. This prevents excess product running down the wall and the end result is coverage at 1 litre to 5m<sup>2</sup>.

### IMPORTANT CAUTIONS:

- Apply only to properly vibrated structural concrete of 20MPa and above.
- Any materials, including some curing agents that prevent penetration of CMA100® into the concrete, must be removed prior to application.
- CMA100® is not suitable for sealing structural/working/volatile cracks or those caused by mechanical damage.
- Most CMA Approved Applicators offer a waterproofing system and if cracks are present that CMA100® is unable to seal, they can be treated with an ancillary product (Drizoro Maxjoint Elastic). Consult your local distributor for details.
- CMA100® is not normally recommended for negative side waterproofing. Where waterproofing from the negative side is required, use DRIZORO MAXSEALFLEX.
- Do not spray CMA100® onto glass, aluminium, wood or painted surfaces or etching may occur. Should contact occur, immediately rinsing thoroughly with water may minimise the etching.
- Design Detailing: CMA100® is not suitable for sealing where segregations and voids are likely, such as design cracks, expansion joints and penetrations. CMA100® should be used in conjunction DRIZORO MAXJOINT ELASTIC EXPRESS.logy. Consult your local distributor for details.
- Pour structural slabs to fall where possible. No screed is required, saving time and money compared to membranes.
- It is BEST practice to seal all Floor/Wall joints using DRIZORO Maxseal Flex and embed Maxmesh.

### PACKAGING

Available in 5 litre, 10 litre, 20 litre and 200 litre

## SHELF LIFE / STORAGE

Stir prior to use. CMA100® has no known shelf life but must be kept in a sealed container and out of direct sunlight. Store between 1°C and 60°C. Do not freeze.

## SAFETY

Take adequate precautions, such as wearing protective gloves and use breathing apparatus if applying in enclosed environments. Avoid contact with the skin and eyes. If contact is made, especially with the eyes, flush with lots of water. Refer to Safety Data Sheet.

## TECHNICAL DATA

| Colour              | Clear to slightly opaque liquid | TESTING SHEET                                  |               |   |
|---------------------|---------------------------------|--|---------------|---|
| Specific Gravity    | Range 1.2 - 1.3                 | PROPERTIES                                     | STANDARD      | RESULT                                    |
| Voc                 | Zero                            | Water Permeability                             | EN1062:3      | 70% Reduction                             |
| Boiling Point       | 101°C                           | Chlorine Permeability                          | ASTM C1202-19 | Very low                                  |
| pH                  | 11.3                            | Depth of Penetration                           | EN1504:2      | Exceeds standard                          |
| Toxicity            | Non-Toxic                       | Concrete Hardness                              | EN101         | Grade 9 of Mohs scale<br>(Granite is 6-7) |
| Non-volatile solids | 25 - 27%                        | Slip Resistance change                         | EN1303-6:2011 | No change                                 |
| Flammability        | Not applicable                  | Bond to cementitious materials (pull-off test) | EN1542:199    | 80% Increase                              |

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## WARRANTY

CMA Pty Ltd warrants that the products supplied conform to the formulation standards contained in all components in their proper proportion and are free from material defects. If any of the products are found to be defective, the subsequent liability to CMA Pty Ltd shall be limited only to the replacement of the product proven to be defective and shall not be liable for any other claim or for incidental or any consequential damages that may arise directly or indirectly with the said defective product. The user shall determine the suitability of the product for its intended use and the user assumes all liability in connection therein and CMA Pty Ltd shall not be liable save for terms of this warranty.

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## CMA100

**CMA100**  
Forms a barrier **INSIDE** the concrete that prevents the ingress of water, chlorides & others

TOP OF CONCRETE

REINFORCEMENT

Waterproof  Concrete. For life.

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