

# EDEN CRYO COAT

Hydrophilic Crystalline Cementitious Waterproofing Membrane

## PRODUCT DESCRIPTION

EDEN Cryo Coat is a single component hydrophilic crystalline cementitious waterproofing membrane with embedded recent advances for cementitious waterproofing membrane and is suitable for both positive and negative side waterproofing of interior and exterior concrete and masonry surfaces. Eden Cryo Coat when mixed with measured water yields a brush able, smooth slurry with excellent bond to most substrates. Eden Cryo Coat continuously form crystals upon contact with water and is a life long technology. Eden Cryo Coat constituent ingredient is based on selected synthetic resins, copolymers and cements.

### SPECIAL FEATURES

- ✚ Suitable for use on below ground structures.
- ✚ Fast and easy to apply
- ✚ Excellent resistant to direct water penetration due to its hydrophilic nature.
- ✚ A life long hydrophilic technology.
- ✚ Forms crystals upon contact with water.
- ✚ Can allow surface to breath (Permeable to water vapours) thus preventing build-up of moisture in structure, and reducing maintenance
- ✚ Elastomeric, thus provides excellent crack-bridging properties.
- ✚ Good bond/adhesion strength owing to its polymer modified properties.
- ✚ Good tolerance to domestic chemicals such as detergents.
- ✚ Features quick and easy installation.
- ✚ Does not support bacterial & Fungal growth and its Non-poisonous hence suitable for use in portable water tank applications.
- ✚ Can be applied by trowel, roller and airless spray machine.
- ✚ Can withstand moderate movement of hairline cracks. Bridges cracks up to 0.3mm in width, thank to its flexible nature and thus reducing maintenance.

### WHERE TO USE

EDEN CRYO COAT is suitable for application in the following areas:

- ✚ Waterproofing of Retaining, foundation and basement Walls.
- ✚ Waterproofing Under-tile in Bathrooms, Terraces, and Roof gutters wet areas etc.
- ✚ Roofs slab and gutter Waterproofing
- ✚ Waterproofing of internal and external faces of water tanks, sumps, reservoirs, planter boxes etc., before tiling or other surface finishing.
- ✚ For use in the treatment of terraces, balconies,

kitchen and toilet floors as a sandwich treatment, to prevent water ingress.

- ✚ Treating bridge and flyover decks before wearing course to protect concrete from rainwater ingress.

### APPLICATION PROCEDURE

#### Stage-1: SURFACE PREPARATION & INVESTIGATIONS

##### A - Pre Substrate Investigation

- ✚ To further ensure durability and efficiency of membrane performance, substrate should possess a minimum compressive strength of at least 25MPa, and a cohesive bond strength of at least 1.5MPa.
- ✚ Check substrate for the presence of old loose coatings, dirt, fats, oils, organic substances, existing membranes and dust. In any case of the existence of the above listed, adequate surface preparatory measures should be employed such as surface grinding by means of a grinding machine.
- ✚ Ensure new concrete structures is cured for at least 28 days.
- ✚ All visible surface irregularities and indentations need to be smoothed and evened out using EDEN reprofiling range of mortars
- ✚ Ensure proper drainage to slope by means of an advance mortar modified screed using mortar modifiers such as EDEN mortar screed latex.

##### B - Surface Preparation

- ✚ Careful surface preparation is essential for optimum finish and durability thus, surface needs to be clean, dry and sound, free of any contamination, which may harmfully affect the adhesion of the membrane. In order to achieve this, concrete surface must be mechanically profiled and prepared by shot blasting, sandblasting, water-jetting, scarifying, diamond-



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grinding or other engineering-approved method.

- ✚ The concrete or screed substrate has to be primed and/or levelled in order to achieve an even surface

### C - Post Substrate Preparation Investigation

- ✚ Any uneven or visibly loose pieces needs to be chipped off and perfected using EDEN reprofiling range of mortars to achieved an excellent smooth finish.
- ✚ Thoroughly remove any evidence of grinding dust Observe.

## Stage-2: APPLICATION

### A - Priming

Best practice suggest that substrate attains an (SSD) surface saturated dry condition before the application of EDEN CRYO COAT.

### B - Mixing

EDEN CRYO COAT must be thoroughly mixed using a low speed electric stirrer (300- 400rpm) or other suitable equipment. Prior to mixing, measure out 4 liters of water or (1 part liquid to 3 part powder can be adopted) into a mixing container and gradually add EDEN CRYO COAT, while stirring with a low speed electric stirrer (300-400rpm). Mix for 2 minutes minimum until a uniform homogenous mix has been achieved. Always ensure to follow the standard practice of pouring powder to liquid.

### C - Application

Apply EDEN CRYO COAT to prepared substrate by roller, spraying equipment, trowel or brush. Ensure entire surface is uniformly coated leaving no puddle, air entrapments or undulation against the direction of screed bed slope when coating entire surface. Depending on application style adopted, where necessary, immediately roll in two directions with spiked roller to ensure even thickness and to remove entrapped air. Gradual spread over substrate in order to minimize / avoid air entrapment is highly recommended. A minimum of two coat is recommended while taking note of faintly applied areas for immediate additional coating. It is extremely important that the area being treated is shaded from direct sun rays and wind to prevent rapid drying of the coating. Product should not be applied under active rain pour.

### Trouble areas

Trouble areas such as wall- to-floor connections, 90°

degree angles, chimneys, pipes/pipe openings, waterspouts (siphon), duct, drainage, etc should be reinforced using a fabric material. Apply EDEN CRYO COAT to the rightly sized fabric material to be used, ensuring it is fully saturated, then press in and dress the now soaked fabric material to the problem area.

### Re-coat

Re-coat substrate once cured within 2 – 3 hours or once tacky.

### C - Curing

EDEN CRYO COAT has good curing time but will experience accelerated curing under direct sunlight. Generally, It is important to protect EDEN CRYO COAT against rapid drying from exposure to direct sun ray, extreme temperatures or wind, hence curing by means of a curing compound or frequent water ponding/application is recommended.

## RECOMMENDATION:

### Before Use

It is recommended that product is stirred well before using for at least 2-3 min. Check product seal to ensure it is unbroken or fake. Consult customer support should any concern arise for clarity and Technical support.

### General

- ✚ Generally, the use of a reinforcing fabric material is recommended for better membrane strength where necessary.
- ✚ Use 5-10cm stripe overlapping when using fibre material over very wide areas that would require joining.
- ✚ Re-coat After 2-3 hours, multiple layer coating gives strength to the membrane when finally cured.
- ✚ Apply multiple coat at demanding/troubled areas. A minimum of 3 coating is recommended.
- ✚ In a case where EDEN CRYO COAT is to be covered with ceramic tiles or similar material with similar application process, an additional waterproofed mortar modified screed should be applied to membrane surface once cured to protect membrane from damage during tiling installation, However when dealing with an experienced tiler, tile adhesive can be directly applied over membrane while taking care not to damage membrane during tile installation.

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## TECHNICAL PROPERTIES

<i>Packaging</i>	20kg unit pack	<i>Powder</i>
<i>Shelf life</i>	12 months minimum from date of production	<i>If stored properly in original, unopened and undamaged sealed packaging.</i>
<i>Appearance</i>	Greyish Powder	<i>Grey appearance when mixed.</i>
<i>Mix Ratio</i>	(1 part liquid to 3 part powder can be adopted) or 20kg powder to 4 litres of water	<i>Mix to attain desired slurry consistency</i>
<i>Pot Life</i>	Approximately 35-60minutes	<i>Under normal conditions</i>
<i>Density (freshly mixed mortar)</i>	~1.9 kg/L	<i>(Slurry mix, +27 °C)</i>
<i>Tensile strength</i>	>1.9N/mm <sup>2</sup>	<i>ASTM D 412</i>
<i>Tensile adhesion strength</i>	>2.0N/mm <sup>2</sup>	<i>ASTM D 412</i>
<i>Adhesion to substrate</i>	1.0N/mm <sup>2</sup>	<i>ASTM D4541</i>
<i>Permeability to Water</i>	Negligible (less than 0.1mm)	
<i>Elongation at break</i>	~55%	
<i>Application Tolerance temp.</i>	>+5°C	<i>Minimum</i>

## APPLICATION INFORMATION

<i>Cure Time</i>	24 hrs minimum for initial curing	<i>Dependent on application rate, effective sunlight accessed to the area and puddle concentrations.</i>
<i>Re-coat time</i>	Allow 2 - 3 hours minimum between coats	<i>Depending on application rate and style</i>
<i>Minimum Time To Re-coat</i>	As Observed	<i>Depending on application rate and style</i>
<i>Maximum Time To Re-coat</i>	As Observed	<i>Protect from direct sunlight and frost</i>
<i>Storage condition</i>	Store in dry conditions in original packaging at temperatures between +5 °C and +30 °C.	<i>Actual coverage depends upon the method of application, the texture and porosity of the surface.</i>
<i>Coverage</i>	1.5 - 1.7kg / sqm coat for 1mm Dry film thickness in 2 coats.	

### COVERAGE ESTIMATION

The recommended coverage of Eden CRYO COAT is 1 kg/m<sup>2</sup> per coat to obtain an approximate wet film thickness of 0.8 mm (± 0.08mm) minimum. Therefore, material requirement is approximately 2 kg/m<sup>2</sup> for a total dry film thickness (DFT) of 1 mm (± 0.1mm) in two coatings.

### CAUTION

- ✚ Protect EDEN CRYO COAT membrane once cured from direct sunlight by using a suitable protection sheet or a cement screed or fibre cement board for floors.
- ✚ EDEN CRYO COAT is recommended for use only as



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described in the Uses section of this data sheet.

- ✚ Be careful to observe written instruction on all technical documents for this product such as *Safety Data Sheet, Method Statement Data Sheet, Technical Data Sheet, and Test Certificate Results* for Further details on Environmental Health and Safety.
- ✚ Application in cooler temperatures may require extra curing time before the installation of additional coverings.
- ✚ Do not add water to dilute the material
- ✚ Coverage is changeable depending on the application type, surface porosity, surface profile, variation in level or wastage etc. it is recommended that at least 3 layers are applied.

### BASIS OF PRODUCT DATA

All technical data stated in this Product Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

### ECOLOGY HEALTH AND SAFETY

Information on the safe handling, storage and disposal of chemical products, user is advised to refer to the most recent/updated *Safety Data Sheet, Method Statement Data Sheet, and Technical Data Sheet*, containing physical, ecological, toxicological and other safety/handling/storage related data.

### CLEAN UP

Wash hands and tools with EDEN super cleaner or any of EDEN recommended cleaning products promptly before the material hardens. Cured material must be mechanically removed.

### TECHNICAL SUPPORT

AISE-OHIS EDEN CONSTRUCTION (CHEMICAL) Ltd provides a technical advisory service supported by a team of specialists in the field.

### STORAGE AND SHELF LIFE

- ✚ EDEN CRYO COAT can be stored 12 months minimum from date of production if stored properly in original, unopened and undamaged / sealed packaging.
- ✚ EDEN CRYO COAT is supplied in a 20kg bag (powder) and a 8liter Keg (Liquid).

- ✚ Storage area should be free from direct sunlight rays.
- ✚ Storage area should be free from moisture and rain.
- ✚ Products should remain in their original, unopened containers, bearing the manufacturers name, product designation, and batch number and application precaution labels.

### STANDARD COMPLIANCE

Conforms to EN 1489-2007, ASTM D-968

### HEALTH & SAFETY

- Please ensure that hand gloves and goggles are worn during installation
- Apply in ventilated areas, away from flames
- It is only important that during application and after application, standard safety procedures are done.
- Please consult current MSDS for product.
- *For Professional Use only.*

### ADDITIONAL INFORMATION

AISE-OHIS EDEN CONSTRUCTION (CHEMICAL) Ltd manufactures a complete range of construction chemical products which include:

- ✚ Cementitious Waterproofing membrane
- ✚ Acrylic Waterproofing membrane
- ✚ Polyurethane Waterproofing membrane
- ✚ Bituminous Waterproofing membrane
- ✚ Flooring solution
- ✚ Damp-Proofing products
- ✚ Repair and refurbishment systems
- ✚ Water-stop
- ✚ Cleaning agent
- ✚ Bonding agent
- ✚ Decorative / Repair mortars
- ✚ Tile adhesive and grouts

For more information on any of our products, please contact AISE-OHIS EDEN CONSTRUCTION (CHEMICAL) global or regional office.

### LEGAL NOTE

Details contained in this Technical Data Sheet is provided in good will based on the experience and knowledge of the products been stored, handled and applied properly under normal conditions. That client will be responsible to duly follow all instruction written herein. However, Whilst Aise-Ohis Eden Construction (Chemicals) Limited endeavors to ensure that any advice, recommendation, specification or information it may give is accurate and correct, it cannot, because it has no direct or continuous control over where or how its products are applied, accept any liability either directly or indirectly arising from the use of its products, whether or not in accordance with any advice, specification, recommendation of information given by it. Therefore, user is mandated to check/test product's suitability for the intended application and purpose. Aise-Ohis Eden Construction (Chemicals) Limited reserves the right to change the properties of its products. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the most recent issue of the local Product Data Sheet for the

product concerned, copies of which will be supplied on

