

EDEN LATEX

Multi-Use Acrylic, Water resisting Cementitious Mortar/Concrete Bonding Latex

PRODUCT DESCRIPTION

EDEN LATEX is a refined High-grade viscous acrylic emulsion bonding agent/admixture for cementitious mortar/concrete. It is a specially formulated water-resistant latex employed for use in patching and in areas where increased adhesion is required. It can be used also as a polymer modifier in mortars and concretes to increased tensile, flexural and bond strengths, magnitude resistance to water and hydrolysis. An outstanding feature of EDEN LATEX is that it is not re-emulsifiable, thus making it a general-purpose admixture for producing polymer-modified concrete and mortar. As ordinary mortar/concrete cures, voids are left which make it permeable and weaker. The particles of EDEN LATEX bind to form continuous films and strands, which stitch the opposite sides of the voids together thereby blocking all spaces, and increasing strength and resistance to water penetration.

SPECIAL FEATURES

- ✚ Proven record of performance
- ✚ Earlier hardening
- ✚ Prevents bleeding
- ✚ Lowers water-cement ratio
- ✚ Improves water resistance.
- ✚ Compatible with all cement types.
- ✚ Suitable for interior and exterior applications.
- ✚ Reduce dry shrinkage adversely.
- ✚ Improve crack resistance.
- ✚ Excellent adhesion to a wide range of substrates.
- ✚ Excellent resistance to abrasion, and increased durability and toughness.
- ✚ Helps to bond old and new concrete together
- ✚ Non-toxic
- ✚ Similar thermal expansion and modulus properties to concrete (unlike resin mortars and primers).

WHERE TO USE

EDEN LATEX is suitable for application in the following areas:

- ✚ Used in modifying concrete that are used as underlay for special finishes and where concrete efflorescence reduction/resistance is required.
- ✚ Can be used to improve mortar/concrete that is used in resurfacing and repairing concrete floors
- ✚ Can be employed for use in spalled concrete repairs,
- ✚ It is suitable for use in cement-based coatings, toppings, patches, levelling compound, stucco, terrazzo and mortar.
- ✚ It can be used on above or below grade, internal or exterior cementitious surfaces.
- ✚ It is widely used on highway, fly-over, and

concrete constructions on the sea, new and old buildings.

- ✚ Bonding directly new concrete to old concrete and on masonry surfaces,
- ✚ Can modify tile adhesive/gum used in bedding tiles,
- ✚ Can be used in fixing or re-fixing slip bricks, and modifying concrete to exhibit better non-dusting properties.
- ✚ Can be used on structures such as basements, lift pits, inside tanks, and swimming pools waterproofing, where resistance to mild chemical such as alkalis, dilute acids, milk, sewage effluent, mineral oil, is required.

APPLICATION PROCEDURE

Stage-1: SURFACE PREPARATION & INVESTIGATIONS

A - Pre Substrate Investigation

- ✚ To further ensure durability and efficiency of membrane / concreting 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 smoothened and evened out using EDEN reprofiling range of mortars



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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/concrete. In order to achieve this, concrete surface must be mechanically profiled and prepared by shot blasting, sandblasting, water-jetting, scarifying, diamond-grinding or other engineering-approved method.

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 Observed.

Stage 2 – (Mixing)

Take care to thoroughly premix the sand/aggregate or gravel with the cement then add EDEN LATEX to the mix while stirring slowly.

- As a Cement Modifier:** 1 liter of EDEN LATEX: 5Kg cement: 15Kg graded quartz sand.
- As a Bonding Agent:** 0.5 Part Cement: 1 Part EDEN LATEX by Weight.
- As a Waterproofing Agent:** 2-5% of EDEN LATEX be mixed with concrete by weight of cement.

Stage 3 (Application)

As a substrate Bonding agent/primer

- Apply the now thoroughly mixed EDEN LATEX onto the prepared substrate.
- The repair mortar/topping should be applied whilst the primer is still tacky.
- Sufficient bond strength can be achieved up to 15-20 minutes after application at 25°C - 30°C.

As a mortar/cement modifier or waterproofing agent

- In order to obtain a smooth consistency mortar, the cement and sand must be dry mixed and then poured into the liquid with the required amount of water in the prescribed/recommended mix proportions as stated above.

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

- Immediately before priming, the concrete substrate should be thoroughly dampened with water and any excess being brushed off.
- Re-coat as observed when required and tacky as multiple layer or higher coating thickness would produce higher strength when finally cured.

DOSAGE

- As Cement Modifier.**
Approximately 0.5liter (minimum) - 2liter (maximum) / Bag of cement
- As Bonding Agent.**
Dosage: 1-1.5% by weight of cement
- As Waterproofing Agent.**
Approximately 2.0liter (minimum) – 3.0liter (maximum) / Bag of cement

Dosage rate for extreme conditions

- Dose at 3-5ltr of EDEN LATEX per 50kg cement.
- For super critical condition for adhesion, waterproofing, water vapor resistance of chemical resistance dosage at 5-10 liter of EDEN LATEX per 50 kg cement, can be adopted.

CAUTION

- Ensure container used for mixing are clean and dry.
- Use of wet aggregate may result in excessive workability.
- Unless otherwise stated, typical properties are based on a 3:1 sand/cement mix in which 5ltr of EDEN LATEX per 50kg of type I OPC cement has been incorporated.
- Variation in cement used and workability can give increased strengths.
- Protect EDEN LATEX from direct sunlight
- EDEN LATEX is recommended for use only as described in the Uses section of this data sheet.
- Be careful to observe written instruction on all



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technical documents for this product such as *Safety Data Sheet, Method Statement Data Sheet, Technical Data Sheet, and Test Certificate Results.*

- Application in cooler temperatures may require extra curing time and in higher temperature can experience accelerated curing.

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.

TECHNICAL PROPERTIES

<i>Packaging</i>	5kg, 20kg	<i>Keg</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>	Whitish liquid	<i>Viscous</i>
<i>Solid content by weight</i>	~ 45 %	
<i>Spg</i>	~1.1	
<i>Compressive strength</i>	≥18MPa @ 3days	<i>ASTM C109 (Observing good concreting practice)</i>
<i>Tensile strength</i>	≥3.1MPa @ 7days	<i>ASTM C190 (Observing good concreting practice)</i>
<i>Substrate Temperature</i>	+5 °C min. / +35 °C max	
<i>Bond strength</i>	3.4MPa	<i>ASTM C-882)</i>
<i>pH</i>	5.5 - 6.5	
<i>Chloride content</i>	Nil	

APPLICATION INFORMATION

<i>Initial bond strength time</i>	15-20 minutes	<i>Dependent on application rate, effective sunlight accessed to the area and puddle concentrations. Protect from direct sunlight and frost</i>
<i>Initial bond strength temp</i>	25°C - 30°C.	
<i>Storage condition</i>	Store in dry conditions in original packaging at temperatures between +5 °C and +30 °C.	
<i>Mixing Methodology</i>	Mechanical	
<i>Application Tools</i>	Brush or Trowel or as appropriate	
<i>Ambient Air Temp</i>	+5 °C min. / +40 °C max.	



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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 LATEX can be stored 12 months minimum from date of production if stored properly in original, unopened and undamaged / sealed packaging.
- ✚ EDEN LATEX is supplied in 5kg, & 20kg buckets.
- ✚ Storage area should be free from moisture and direct sunlight.
- ✚ 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 the requirements of ASTM C1059

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 request.

