

# EPO SEAL

Acrylic Polymer Modified Elastomeric Cementitious Waterproofing Coating



## DESCRIPTION

**EPO SEAL** is a two component product consisting of "Part A" a blend of liquid acrylic latex copolymers and "Part B" cementitious waterproofing powder. Both products part "A" and Part "B" are mixed at the job site and applied with a brush or trowel.

## USES

- As waterproofing coating for concrete slabs (roofs, balcony, floors, kitchen floors, bathrooms under tiling etc.)
- As waterproofing coating for sea-water structures.
- As protection to concrete surfaces from carbonation and chloride attack.
- As protective coating for underground structural concrete.
- As backing of marble and granite to prevent surface staining.
- As waterproof lining for water retaining structures/ swimming pools.
- As general-purpose thick coating to ensure water tightness of the structure.
- As coating for sewage treatment plants.
- As waterproof coating for water tank (not potable water)

## ADVANTAGES

- Flexible, with thermal expansion similar to concrete.
- Excellent barrier to carbon dioxide, chloride and sulphate ions.
- High resistance to the effect of long-term weathering, durable in all climate conditions including UV attack.
- Allows water vapour to escape from the structure.
- Waterproof-suitable for water retaining structures.
- Excellent bond to concrete and masonry.
- Good crack accommodation capacity.
- Minimum surface preparation needed and low labour costs.

## PRODUCT DATA

<b>Form</b>	Part A - White Liquid Part B - Dry powder
<b>Packing</b>	Part B - 20 Kg Kraft Bag Part A - 5 Kg Can
<b>Consumption</b>	1.5 – 2 Kg/m <sup>2</sup> (for single layer in bush application)
<b>Shelf Life</b>	12 months when stored dry conditions at moderate temperature and humidity.

## TECHNICAL SPECIFICATION

Test Name	Standard	Result
<b>Mix Density</b>	ASTM C138	1.90 ± 0.10 g/cm <sup>3</sup>
<b>Compressive Strength</b> 28 days	ASTM C579	> 8.0 MPa
<b>Flexural Strength</b> 28 days	ASTM C348	> 1.5 MPa
<b>Tensile Strength</b> 28 days	ASTM C307	> 2.0 MPa
<b>Setting Time(min)</b> Initial Setting Time Final Setting Time	ASTM C308	> 600 min < 1100 min
<b>Pull off adhesion/Bond Strength</b>	ASTM D7234/ ASTM D4541	> 1.0 N/mm <sup>2</sup>
<b>Water Vapor Permeability</b>	ASTM E96	0.36 g/m <sup>2</sup> /24Hrs
<b>Shore D Hardness</b>	ASTM D2240	> 60
<b>Water Absorption</b>	ASTM C413	< 1 %
<b>Volatile Organic content</b>	USEPA 24	< 0.5 g/Ltr
<b>Crack Bridging Ability</b>	ASTM C836	Good
<b>Effects of potable water / Microbiological growth</b>	BS 6920	Pass
<b>Shrinkage</b>	ASTM C531	0.004%
<b>Water Penetration</b>	ASTM E514	Pass
<b>Chemical Resistance</b>	ASTM C267	Good
<b>Chloride Content</b>	ASTM C1218	< 0.1 %

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## APPLICATION INSTRUCTIONS

### SURFACE PREPARATION

All surfaces which are to receive the coating must be free from oil, laitance, grease, wax, dirt or any other form of foreign matter which might affect adhesion. Typically concrete surfaces can be cleaned using high pressure water jet or grit blasting or by proper wire brushing. Spalled surfaces or those containing large blow holes, cracks and other such defects should be repaired using **EPO GULF** concrete repair mortars.

For further advice on suitable repair mortars, contact **EPO GULF** Technical department.

### MIXING

**EPO SEAL** is supplied in pre-measured units and should be mixed on the site using clean plastic pails. Gradually add the dry powder (Part B) to the liquid (Part A) and mix using a slow speed electrical drill fitted with mixing paddle.

Do not mix more material than can be utilized within 1 hours' time. For small size mixes, use 4 part of powder for 1 part of liquid. Mix thoroughly and keep mixed during application.

### APPLICATION

Apply properly mixed **EPO SEAL** whilst the concrete surface is damp. Use a stiff bristle brush or roller. Install in 2 coats, a membrane of thickness not less than 1.5mm and do not exceed a thickness of 4mm (apply in 3 to 4 coats).

If **EPO SEAL** is used in areas that will be walked on or if required to toughen the coating applied then use of fiberglass or other reinforcing fabric is recommended. This is pressed into position whilst the first coat is still tacky and then followed by a full second coat.

**Note:** In hot weather conditions or in order to improve brushability, up to 2% (i.e. 500ml). Water may be additionally added per pack.

**Curing Period:** There is no need for a curing aid, it is important that applied surface is allowed to cure on its own for at least 7 days at 30°C and above or 14 days at 20°C or below. Any testing (if required) should be carried out after the curing period.

**Note:** If **EPO SEAL** is used in tanking situations it is preferable to wash down the surface with water after the curing period and then put into use.

## COVERAGE

1 full pack covers about 6 to 8 square meters at 2 mm thickness (2 coat applications at 1mm thickness /coat)

## PRECAUTION

**Cleaning:** All equipment must be cleaned with water immediately after use. Mixes containing this product must not be emptied into drainage systems.

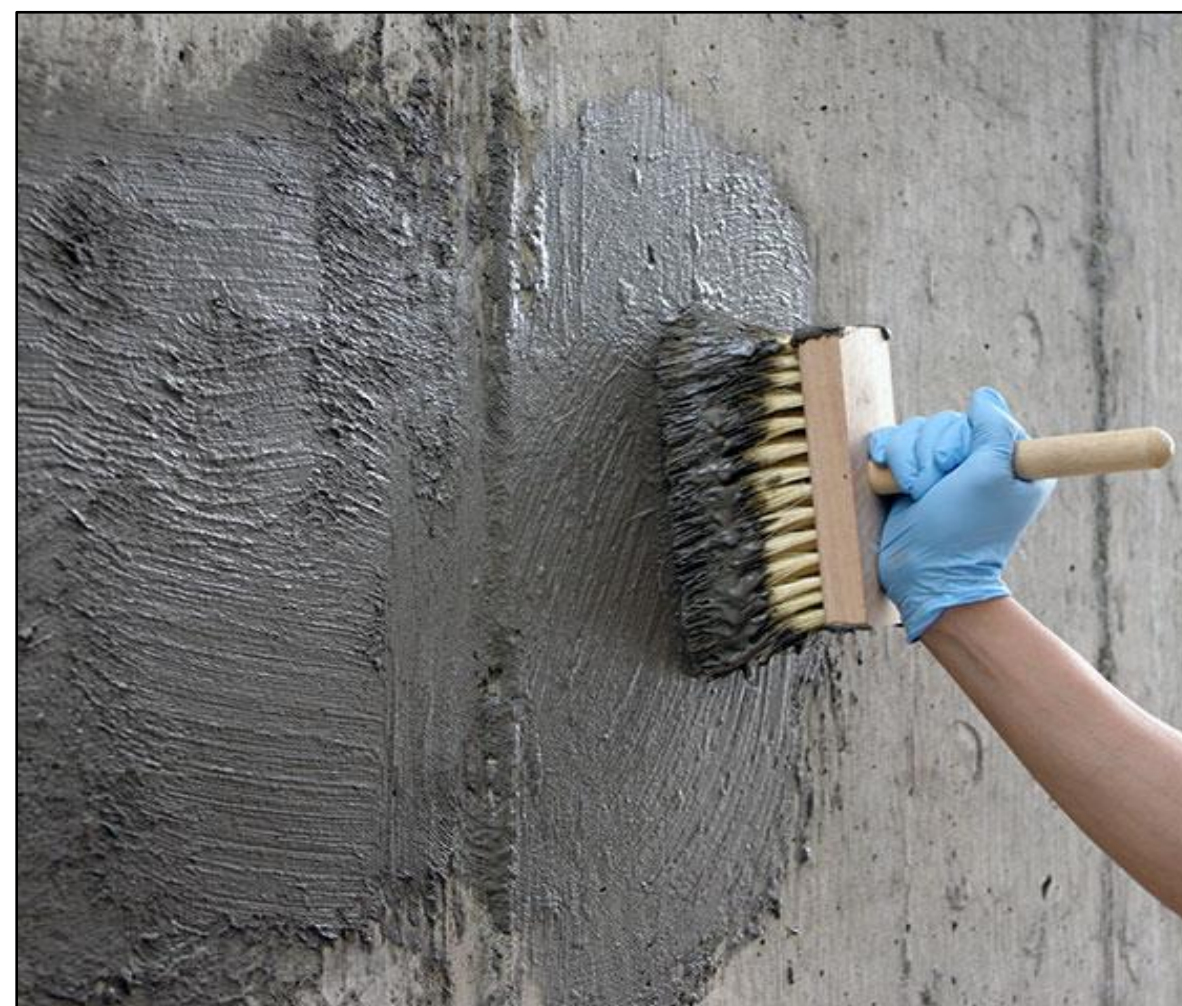
**Protection:** All works must be protected from rain and frost until fully hardened. It is recommended to Protect with polyethylene sheeting or similar.

## PERFORMANCE STANDARDS

Complies with **ASTM E 514, ASTM C 579, ASTM C 413 & ASTM C 321**

## HEALTH AND SAFETY

**EPO SEAL** is nontoxic but is mildly alkaline. Gloves should be worn during application. Splashes to the skin or eyes should be removed with clean water. In the event of prolonged irritation, seek medical advice.



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