

DESCRIPTION

EPO POL is a pure Methacrylic resin based anti-carbonation protective coating. It is available in a wide range of colours. The coating is reactive and capable of producing a chemically-bound hydrophobic barrier, thus inhibiting the passage of water and water-borne contaminants. The **EPO POL** system is a single component pigmented coating, which is ready for immediate site use.

USES

EPO POL is designed to provide protection for atmospherically exposed structures against attack due to high moisture levels, acidic gases, and sulphate and chloride ions. Typical uses include:

- Anti-carbonation coating
- Bridge abutments
- Concrete cladding and precast units
- Boundary walls
- Plinths and pipe support racks
- Concrete storage tanks
- High rise buildings and villas

ADVANTAGES

- High performance - comprehensive barrier against carbon dioxide, water, sulphate and chloride ions.
- Breathable - also allows moisture vapour to escape from the structure.
- Extremely durable - highly resistant to the effects of long term UV weathering.
- Protection in depth - dual action system protects both the surface and the substrate.
- Highly decorative - wide range of colours available, with low dirt pick-up to minimize maintenance costs.

STANDARDS COMPLIANCE

It complies with **ASTM C 672** and **Taywood method**.

PRODUCT DATA

Form	Liquid
Colour	Grey and varies upon requirement
Packing	20 Kg Metal can
Consumption	4 - 6 m ² /Kg/Coat
Shelf Life	12 months dry and cool, without opening package

TECHNICAL SPECIFICATION

Test Name	Result
Density	1.215 ± 0.01Kg/Ltr
Solids By Weight	60 ± 2 %
Dry Time @ 20°C	> 30 minute
Full Cure Time @ 20°C	24 Hours
Adhesion on concrete Adhesion on Steel	> 5 N/mm ² > 4 N/mm ²
CO₂ Diffusion Strength (Taywood method)	High
Chloride ion diffusion coefficient 2,000 hours QUV weathered (Taywood method)	No chloride ion diffusion after 1500 days testing
Freezing / Thawing (50 cycles) Good quality concrete (control) ASTM C672	No effect was observed



APPLICATION PROCEDURE

PREPARATION

All surfaces should be dry and free from contamination such as oil, grease, loose particles, decayed matter, moss, algae growth, laitance, and all traces of mould release oils and curing compounds.

This is best achieved by lightly grit blasting the surface. Where moss, algae or similar growths have occurred, treatment with a proprietary biocide should be carried out after the grit blasting process.

Note: It is not necessary to remove **EPO CURE** curing Membrane prior to the application of **EPO POL** provided the adhesion to the substrate is excellent.

Where application over existing sound coatings is required, trials should be conducted to ensure compatibility and retention of the bond between the underlying coating and the substrate. For further advice, consult **EPO GULF TECHNICAL DEPARTMENT**.

It is essential to produce an unbroken coating of **EPO POL**, to ensure this is achieved, surfaces containing blow holes or similar areas of pitting should first be filled using a suitable cementitious fairing/repairing material like **EPO CEMENT 020/020 C**.

The cementitious fairing/repairing coat should be allowed to cure for about 48 hours depending on ambient conditions before the application of **EPO POL**.

APPLICATION

In order to obtain the protective properties of the **EPO POL** System, it is important that the correct rates of application and over coating time are observed.

Application should not commence if the temperature of the substrate is below 10°C.

Any areas of glass should be masked. Plants, grass, joint sealants, asphalt and bitumen - painted areas should be protected during application.

Primer application is generally not required, but depend upon surface if required substrate can be primed by diluting **EPO POL** to 10-20% by **EPO SOLVENT 100**.

	EPO POL
Number of Coat(s)	2
Application rate per coat	0.15 - 0.25 Kg/m ²
Wet film thickness per coat	150 - 250 microns
Total dry film thickness/2 coats	200 - 300 microns
Over coating time	
@ 20°C	3 hours
@ 35°C	2 hours

EPO POL may be applied by the use of suitable brush, roller or airless spray. Queried relating to spray application should be referred to the **EPO GULF TECHNICAL DEPARTMENT** prior to the commencement of work. For further information about application techniques, please consult **EPO GULF TECHNICAL DEPARTMENT**.

All substrates should be treated with two coats of **EPO POL**. The material should be stirred thoroughly before use. The first coat should be applied to all areas by the use of suitable brushes or rollers to achieve a uniform coating with wet film thickness not less than 150 microns. This coat should be allowed to dry before continuing.

The second coat of **EPO POL** should be applied exactly as detailed above, again achieving a wet film thickness not less than 150 microns.

CLEANING

Cementitious fairing coat should be removed from tools and equipment with clean water immediately after use.

EPO POL should be removed from tools and equipment using **EPO SOLVENT 100**.

LIMITATIONS

The **EPO POL** system is formulated for application to clean, sound concrete or masonry. The product should not be applied over dense, nonporous materials. Where application over existing sound coating or paints is required, trials should be conducted to ensure compatibility and retention of the bond between the underlying coatings or paints, the performance characteristics of **EPO POL** may be impaired. Compatibility and soundness should be assessed on a trial area. For further advice, consult **EPO GULF TECHNICAL DEPARTMENT**.

PACKING & COVERAGE

PACKAGING

EPO POL is available in 20 Kg can
EPO SOLVENT 100 is available in 3.2 Ltr & 16 Ltr can.

PRECAUTIONS

FIRE

EPO POL and **EPO SOLVENT 100** are flammable, should be kept away from sources of ignition. Smoking not allowed. In the event of fire, extinguish with CO₂ or foam, should not use a water jet.

FLASH POINTS

EPO POL -- 42°C
EPO SOLVENT 100 -- 41°C

HEALTH AND SAFETY

EPO POL and **EPO SOLVENT 100** should not come in contact with skin and eyes, or be swallowed. Adequate ventilation should be ensured and inhalation of vapours should be avoided. Some people are sensitive to resins, hardeners and solvents, hence suitable protective clothing, gloves and eye protection should be worn. If working in confined areas, suitable respiratory protective equipment must be used. The use of barrier creams provides additional skin protection. In case of contact with skin, should be rinsed immediately with plenty of clean water and medical advice sought. If swallowed. Medical attention sought immediately. Should not induce vomiting.