

POLYPOXY EPU

Epoxy Polyurethane based flexible protective coating

Polypoxy EPU is an easy to use, flexible, two component epoxy-polyurethane based protective coating material providing chemical and abrasion resistance to prevent corrosion of concrete surfaces. It is corrosion resistant, tarfree and resistant to salt solutions, underground conditions, acid and alkali solutions.

CHARACTERISTICS

- ▶ Easy to use-can be applied by brush, roller or spray application
- ▶ Flexible coating
- ▶ No need of prior primer application
- ▶ Excellent chemical resistance
- ▶ Resistant to bacteria growth
- ▶ Environment friendly
- ▶ Free of carcinogenic materials like coal tar (pitch)

FIELDS OF APPLICATION

- ▶ Manhole & pipe linings
- ▶ As floor and wall coating for concrete protection
- ▶ Reservoirs, water treatment plants
- ▶ Foundation waterproofing
- ▶ Sewage & effluent plant linings
- ▶ Seawater tanks & channels
- ▶ Secondary containments

APPLICATION INSTRUCTION

Surface Preparation

The concrete surface should thoroughly be cleaned of all loosely adhering particles, laitance, dust, oil, grease, paint, etc. Grit / captive blasting and mechanical grinding is recommended for removing all surface contaminants.

Priming

For properly prepared concrete surfaces, no priming is required. However, for porous concrete surfaces, Polyprime EP can be used as the primer and the Polypoxy EPU coating should be applied when the primer is dry, but within 24 hours of

application of the primer.

Mixing

Pour the entire contents of Part B (Hardener) into Part A (Base) and mix thoroughly for a minute with a heavy duty paddle mixer fitted to a high torque slow speed (300-400 rpm) drill to get a homogenous mix. Mixing should be carried out continuously for 3 to 5 minutes. As the products are supplied in pre-weighed packs, part mixing is not recommended, as the cured product will not achieve its full properties even if there is a small variation in the mixing proportions.

Brush / Roller Application

After mixing, the material should be applied immediately. The first coat is applied to achieve a uniform coating with a wet film thickness of around 200 microns. The second coat can be applied after 4 hours (at 35° C) of application of the first coat with a wet film thickness of around 200 microns.

Spray Application

Spray application can be done for considerably larger areas. Please consult local Henkel Polybit office for further details.

Curing

The applied material will achieve its full cure after 7 days of application at 23° C.

Coats

It is recommended to do 2 coats of application so as to ensure a proper finish and full, unbroken coating.

COVERAGE

5m²/liter @ 200 microns wet film thickness (per coat)

CLEANING

Clean all tools with POLYSOLVENT immediately after use. Hardened materials can be removed mechanically only.

LIMITATIONS

Polyoxy EPU is formulated for application on clean, sound substrates of steel or concrete and where it can be protected from contact with water for the first 24 hours after application as discoloration may occur. For cold weather working conditions (down to 5° C), it is recommended that the material is stored in a heated building and only removed just before actual use. Accelerated heating methods are not to be utilized under any circumstances.

STORAGE & SHELF LIFE

Store in a cool, dry place and keep away from all sources of heat and sunlight. In tropical climates, store in air condition rooms. The shelf life is upto 12 months in un-opened condition in warehouse conditions below 35° C and if stored as per recommendations. Excessive exposure to sunlight, humidity and UV will result in the deterioration of the quality of the product and reduce its shelf life.

HEALTH & SAFETY

As with all construction chemical products, caution should always be exercised. Protective clothing such as gloves and goggles should be worn. Treat any splashes to the skin or eyes with fresh water immediately. Should any of the products be accidentally swallowed, do not induce vomiting, but call for medical assistance immediately.

SUPPLY

POLYPOXY EPU	10L kit
POLYSOLVENT	5L & 20L pails

TECHNICAL SPECIFICATIONS

Density (g/cc):	1.48±0.05 @ 23° C
Color & appearance:	Grey, other colours are available subject to minimum order quantities
Pot Life : (ASTM D2471)	35-40 min @ 23° C
Minimum over coating: time (ASTM D1640)	8 hours @ 23° C 4 hours @ 35° C 2 hours @ 45° C
Full Cure: (ASTM D1640)	7 days @ 23° C 4 days @ 35° C
Adhesion Strength: (ASTM D4541)	1.5-2.5 N/mm ² (depending on type of concrete substrate)
Water Absorption : (ASTM C570)	0.2%
Tensile Strength: (BS 2782)	10 N/mm ²
Elongation at break: (BS 2782)	Approx. 25%
Fire:	Non-flammable
Chemical Resistance: (ASTM D1308 @ 23°C & specimens soaked in the solution for 7 days)	Resistant to aqueous solutions such as tap water, sea water, ground water, sewage and also to following acids: i) Hydrochloric Acid 10% ii) Sulphuric Acid 25% iii) Nitric Acid 10% iv) Phosphoric Acid 15%

Apart from the information given here it is also important to observe the relevant guidelines and regulations of various organisations and trade associations as well as the respective standards. The aforementioned characteristics are based on practical experience and applied testing. Warranted properties and possible uses which go beyond those warranted in this information sheet require our written confirmation. All data given was obtained at an ambient and material temperature of +23°C and 50 % relative air humidity unless specified otherwise. Please note that under other climatic conditions hardening can be accelerated or delayed.

The information contained herein, particularly recommendations for the handling and use of our products, is based on our professional experience. As materials and conditions may vary with each intended application, and thus are beyond our sphere of influence, we strongly recommend that in each case sufficient tests are conducted to check the suitability of our products for their intended use. Legal liability cannot be accepted on the basis of the contents of this data sheet or any verbal advice given, unless there is a case of wilful misconduct or gross negligence on our part. This technical data sheet supersedes all previous editions relevant to this product.

Manufactured in G.C.C.

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