

Polypoxy EN

High build phenol novolac epoxy resin based protective coating

To protect substrate in aggressive chemical conditions



CHARACTERISTICS

- ▶ Excellent chemical resistance
- ▶ Solvent free
- ▶ Excellent adhesion to concrete, steel, and other substrates
- ▶ Good abrasion resistance
- ▶ High build Coating
- ▶ High gloss & durable
- ▶ Hygienic and easy to apply and clean



DESCRIPTION

Polypoxy EN is a solvent free, high build epoxy resin protective coating designed to protect substrate in aggressive chemical conditions.

FIELDS OF APPLICATION

- suitable for application in petroleum refineries, chemical manufacturing plants, wastewater treatment, fertilizer and insecticide plants, desalination, power stations, garages, hospitals, food processing, electric power and pulp and paper mills, hangars, laboratories, abattoirs and most other liquid containment / storage areas.
- for the internal and external protection of concrete or metal tanks.
- protection of pipes containing certain oils, fuel & chemicals.

APPLICATION INSTRUCTIONS

Surface preparation

New concrete surface to be treated must be 28 days old. Ensure that the moisture content of the surface is less than 5%. The surface shall be free from dust, dirt, curing compound and laitance. The cleaning shall be done by grit/captive blasting or mechanical grinding. The concrete should be sound and any cracks, pot holes shall be repaired with Polypoxy BF or Polypoxy NF. Prior to the application of the coating make sure that the surface is absolutely dry. All steel surfaces should be grit blasted to



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meet the requirements of BS 4232 & all rust removed completely, the newly cleaned steel should be coated as soon as possible before the formation of rust or scale.

Priming

Prime the prepared surface with Polyprime EP@ 4- 5m²/L. The coating is applied when the primer is in touch dry condition. However, in all circumstances, the coating shall be applied within 12 hours of application of the primer. If the primer surface is left open for more than 12 hours, then a fresh coat of primer has to be reapplied.

Mixing

Ensure that the products has been stored in cool and dry place before mixing. Mix part A (resin) and part B (hardener) separately for 1 minute using a slow speed drill fitted with a paddle. Then add part B into part A and mix thoroughly for 2-3 minutes to achieve uniform color and consistency.

Application

Once mixed, Polypoxy EN should be immediately applied either by brush, squeegee, roller or industrial sprayer as the coating is heavy bodied, it is recommended that coating be applied in a minimum of two or more coats and at the rate of 0.3L/m² /coat, to achieve a dry film thickness of 300 microns. Each subsequent coat shall be applied only after the previous coat dries off completely. After application the

coating must be back rolled to reduce surface irregularities and improve bonding.

Overcoating

To overcoat, it is imperative that the second coat be applied within the specified overcoating time.

CLEANING

Clean all equipment's with Polysolvent immediately after use. Hardened materials can be removed mechanically only.

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 up to 12 months in unopened condition 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. For safe handling information on this product, consult the material Safety data Sheet (MSDS).

COVERAGE

Polyprime EP	4-5 m ² /L
Polyoxy EN	0.3L/m ² /coat for 300 micron dry film thickness

SUPPLY

Polyoxy EN	4L kit
Polyprime EP	5L & 15L kit
Polyoxy BF	3kg kit
Polyoxy NF	3kg kit
Polysolvent	5L & 20L pail

CHEMICAL RESISTANCE

- sulphuric acid (50%)
- lactic acid (10%)
- nitric acid (10%)
- sodium hydroxide (50%)
- potassium hydroxide (10%)
- diesel
- hydrochloric acid (10%)
- sodium hydroxide (10%)
- kerosene
- boric acid (10%)
- battery water
- vegetable oil
- formaldehyde (40%)
- aviation fuel
- sea water
- gasoline

TECHNICAL SPECIFICATION

PROPERTIES	VALUES	TEST STANDARDS
Colour	Gery	-
Finish	Matt	-
Density, [g/cc]	1.35±0.05	ASTM D 1475
Solid content, [%]	100	ASTM D 1644
Pot life, [minutes]	40	-
Tack-free time, [minutes]	120	-
Compressive strength, [N/mm ²]	≥ 80	ASTM D 579
Flexural strength, [N/mm ²]	≥ 20	ASTM D 580
Water absorption, [%]	<0.1	ASTM D 570
Over coating time [Min hours]	6	-
Over coating time [Max days]	7	-
Hardness (Shore D)	56	ASTM D 2240
Adhesion strength [N/mm ²]	> 3	ASTM D 4541
Application temperature, [°C]	15 to 40	

All values given are subject to 5-10% tolerance

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 at laboratory conditions 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.