

# Polypoxy

## Epoxy resin based chemical and abrasion resistant screed

Solvent free, non-shrink mortar screed to provide a heavy duty topping for industrial floors.



### CHARACTERISTICS

- ▶ High Impact and abrasion resistance
- ▶ High compressive, flexural and tensile strength
- ▶ Good resistance to chemicals
- ▶ Non shrink
- ▶ Non tainting
- ▶ Solvent free



### DESCRIPTION

Polypoxy is a solvent free, non-shrink, epoxy resin based mortar screed. The epoxy screed has excellent mechanical and abrasion resistance properties and is resistant to a wide variety of chemicals. This system is designed to provide a heavy duty topping for industrial floors. The screed can be applied in thicknesses from 4mm to 20mm in a single lay.

### FIELDS OF APPLICATION

Used to provide a heavy duty floor screed for:

- chemical plants & factories
- warehouses & workshops
- dairies & food processing plants
- heavy engineering industrial floors
- metal treatment plants
- substations & battery rooms

### APPLICATION INSTRUCTIONS

#### Surface preparation

Clean the surface of all dust, dirt, oil & grease, cement laitance and all loosely adhering particles. New concrete surface shall be at least 28 days old and the surface moisture content less than 5%. Captive/grit blasting and grinding is recommended for the most effective surface preparation. Surface irregularities and blow holes shall be repaired with Polypoxy BF (Epoxy resin based blow hole filler and skimming mortar) or Polycrete ST (cementitious repair mortar). Alternatively an epoxy resin based scratch coat can be used when repairing larger areas (> 0.5m<sup>2</sup>). The surface after carrying out the necessary cleaning shall



be vacuumed for removing the dust debris left over after the cleaning process.

#### Priming

The surface shall be primed with a solvent free epoxy primer (Polyprime EP) @ 4-5 m<sup>2</sup>/L.

#### Mixing

Mix part A and B separately for 2 minutes using a heavy duty slow speed drill (300-400rpm) fitted with a spiral mixing paddle. Pour Part B (hardener) and Part A (base) into a separate container and mix well for a few minutes. Add Part C (filler) slowly to the mixed base and hardener and continue mixing for further 3 – 5 minutes until a uniform and homogenous lump free consistency is achieved. As the products are supplied in pre-weighed packs, part mixing is not at all recommended, as the cured product will not achieve its full properties even if there is a small variation in the mixing proportions.

#### Application

The epoxy screed shall be applied immediately after mixing within its working time. Discharge the mixed mortar from the mixer and place on the floor when the primer is still in a tacky condition. Spread and compact the mortar with a wooden trowel to get a uniform thickness and complete the application with a steel trowel.

## CLEANING

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

## COVERAGE

Polypoxy	1L/m <sup>2</sup> /mm thickness
Polyprime EP	4-5 m <sup>2</sup> /L

## STORAGE & SHELF LIFE

Store in a dry, cool and shaded area. Protect from sunlight, frost and high humidity. In tropical climates, store the material in air conditioned area at less than 25°C. The shelf life of the product is 12 months if stored as per recommendations. Exposure to heat and high humidity will result in the premature deterioration of the product and reduce its shelf life considerably.

## DISPOSAL

Allow the waste to cure. Use licensed waste disposal contractor and consult the local authorities when disposing.

## HEALTH & SAFETY

As with all construction chemical products, caution should always be exercised. Protective clothing such as gloves and safety goggles should always be worn when handling the product. 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	10L kit, wt 20 kg#
Polyprime EP	5L & 15L kit
Polypoxy BF	3kg kit
Polycrrete ST	25kg
Polysolvent	5L & 20L pails

## TECHNICAL SPECIFICATION

PROPERTIES	VALUES	TEST STANDARDS
Density, [g/cc]	1.95±0.05	ASTM D 1475
Application life, [minutes]	>60	-
Compressive Strength @7 days, [N/mm <sup>2</sup> ]	>80	ASTM C 579
Flexural strength, @7 days, [N/mm <sup>2</sup> ]	>30	ASTM C 580
Tensile Strength, @7 days, [N/mm <sup>2</sup> ]	>12	ASTM C 307
Shear bond strength @7 days, [N/mm <sup>2</sup> ]	> 20	ASTM D 882
Abrasion resistance, [mg]	< 50	ASTM D 4060
Impact resistance from a height of 2m	No Indention	
Chemical resistance	pH 2.0 to 11.5	ASTM D 543
Initial cure, [hours]	16-18	-
Full cure, [days]	7	-
Application temperature, [°C]	5 to 35	-
Service temperature, [°C]	5 to 70	-

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.

