

# Polyoxy PS

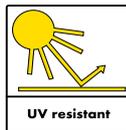
## Polysulphide modified epoxy resin based protective coating

Designed for superior adhesion, corrosion protection and high chemical resistance for concrete and steel structures.



### CHARACTERISTICS

- ▶ Enhanced adhesion to many substrates including rusted and damp surfaces
- ▶ Good corrosion protection
- ▶ Good impact resistance
- ▶ Chemical resistance to a wide variety of fluids in particular to those used in the automotive and aerospace industries
- ▶ Thermal shock resistance. Good electrical properties and controlled acoustic damping characteristics
- ▶ Very low permeability to water and vapor
- ▶ Non-Toxic
- ▶ Good UV resistance
- ▶ Good Flexibility and crack bridging ability
- ▶ Easy to apply
- ▶ Can be used with glass fiber reinforcement to provide a tough, UV stable, abrasion and chemically resistant lamination system.



### DESCRIPTION

Polyoxy PS is a polysulphide modified epoxy resin protective coating designed for superior adhesion, corrosion protection and high chemical resistance for concrete and steel structures. It is a two part system which can be applied up to 1mm thickness to provide a flexible, elastomeric, crack bridging, water and chemical resistant coating.

### FIELDS OF APPLICATION

- industrial corrosion protection of steel and concrete structures
- hard wearing floor coating in industrial areas
- water proofing of potable water structure
- protective coating to exposed concrete structures
- waterproofing & protection of swimming pools, water tanks etc



TDS\_Polyoxy PS\_GCC\_0519

1

- corrosion protection of steel and concrete in sweet and salt water atmosphere as well as protection against chemical and carbonation attacks
- internal lining of manholes & treaded sewage holding tanks
- sea water resistance

### SPECIALTY

Polyoxy PS has the quality & chemical resistance of epoxy plus the flexibility and adhesion properties of polysulphide resins.

### APPLICATION INSTRUCTIONS

#### Surface preparation

The surface should be free from dust, dirt, curing compound, oil etc. Clean the surface thoroughly to remove all loosely adhering particles and cement laitance. It is recommended to use a light mechanical grinder for cleaning. The concrete should be sound and any cracks, pot holes shall be repaired with Polyoxy BF or Polyoxy NF.

#### Priming

Prime the prepared surface with Polyprime EP @ 4-5m<sup>2</sup>/L. the coating is applied when the primer is in a tacky to semi-tacky 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 re-applied. For damp, corroded & contaminated surfaces Polyprime R\* is recommended to be used. Priming is not required for steel surfaces.

### Mixing

Mix part A (resin) and part B (hardener) separately for a minute using a slow speed drill fitted with a paddle to remove any sediment. Then add part B into the part A pail and mix thoroughly for 2-3 minutes to achieve a uniform consistency. apply immediately after mixing within its pot life.

### Application

Apply the coating with a brush, roller or airless spray (nozzle size 0.4-0.6 mm @2500 psi pressure). On vertical surfaces apply the coating at a wet film thickness of 250 microns in a single coat. Since the coating is heavy bodied, dripping may be observed if it is applied at a higher thickness. Additional coats can be applied only when the previous coat dries off completely (8-10 hours). After application the coating must be back rolled to reduce surface irregularities and to improve bonding. Care should be taken to ensure that a continuous film is achieved.

### Note:

1. The coating can be applied as a flexible and crack free flooring with an anti slip finish. Graded sand/quartz can be broadcasted on the first coat while it is still wet and allowed to dry completely. After a period of 24 hours, the excess sand/quartz can be brushed away and the second coat is to be given.
2. lamination system is built with approx. 300 Gsm glass fibre fabric. The system shall be made with primer coat and two layer of coating - both embeded with glass fiber and sealed with a final layer of seal coat.

### CLEANING

Clean all equipments with a Polysolvent. Hardened materials can be removed mechanically only.

### STORAGE & SHELF LIFE

Store under cover, out of direct sunlight and protect from extreme temperatures. In tropical climates the produce must be stored in air - conditioned environment. Shelf life is up to 12 months when stored as per recommendations. Excessive exposure to heat and high humidity will result in the deterioration of the product and reduce its shelf life considerably.

### 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

Polyoxy PS	4L & 20L kit
Polyprime EP	5L & 15L kit
Polyprimer	5L kit
Polyoxy BF	3kg kit
Polyoxy NF	3kg kit
Polysolvent	5L & 20L pails

### TECHNICAL SPECIFICATION

PROPERTIES	VALUES	TEST STANDARDS
Chemical type	Polysulphide modified epoxy resin	-
Mixed density, [g/cc]	1.45±0.05	ASTM D 1475
Color	Grey [other colors upon request]	
Application life, [minutes]	60	ASTM D 2471
Adhesion strength, [N/mm <sup>2</sup> ]	≥2	ASTM D 4541
Curing time	Tack free fullcure 6-8 hours 7 days	
Re-coating, [hours]	10-12	
Coverage	2.0 m <sup>2</sup> /L for 500 microns DFT	
Chemical resistance	Dilute acids and alkalis, solvents, oil, petrol, effluents, sea water etc.	-
Water potability	Passes	BS 6920
UV resistance @100, [hours]	Passes	-
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.