



EPOCOAT 500

Epoxy Polysulphide Waterproofing Coating

Composition and Application Field

EPOFLEX 500 is a two-component, liquid applied epoxy polysulfide-based seamless elastomeric water proof coating.

EPOFLEX 500 combines the features of epoxy and polysulfide to produce a tough and flexible waterproofing membrane with excellent abrasion and chemical resistance.

EPOFLEX 500 is applied over concrete, masonry, asphalt, sewage water pipes and steel marine constructions.

Uses

EPOFLEX 500 is used for sewage water tanks, canals, culverts, swimming pools (under tiles), silos and other above and below ground structures.

EPOFLEX 500 is also used as a protective coating for floors and walls in sewage water treatment plants.

EPOFLEX 500 is also used as a waterproof coating for pile head and retaining walls.

EPOFLEX 500 complies with ASTM C957-1998.

Advantages

- Excellent abrasion resistance. Excellent chemical resistance.
- Easy to apply by roller, by brush or airless spray.
- No primer is required. Liquid applied. Non-toxic.
- Provides seamless coatings. High bond strength to a variety of substrates.
- Resists positive and negative pressure. Tolerates a wide range of temperatures.
- Wide range colors.

Surface Preparation

All surfaces should be clean, dry and free from dust and other contaminants. A dry sponge should be used to remove water on wet surfaces. Treat oil or grease contamination should be removed by degreaser followed by water or steam cleaning.

New concrete floors should be cured for at least 28 days and have a moisture content of less than 5%. Excessive laitance should be removed by mechanical methods. Dust and other debris should be removed by vacuum cleaning.

Old concrete floors damaged areas or surface irregularities should be repaired by using

EPOMORTAR FC two component fast curing epoxy mortar (Refer to TDS).

Steel surface should be grit blasted then cleaned by solvents and kept to dry.

Epoxy Screeds high spots or trowel marks should be rubbed down. Dust and debris

should be removed by vacuum cleaning then repaired it by using **EPOSCREED 10** three component epoxy screed (Refer to TDS.)

Mixing

The mix ratio of Part A: Part B 1: 1 by volume. The entire contents of the hardener (Part B container) should be poured into the base container (Part A container) and mixed thoroughly for at least 3 minutes using of heavy duty slow speed power drill with a jiffy mixing blade. Do not add solvent thinners at any time.

Application Method

EPOFLEX 500 is recommended to apply in two coats by using airless spray, brush or roller. Ensure that the area is completely coated.

Fiber glass mesh at 40 gm/m² can be placed in between If build up and high tensile strength are required.

Limitation:

Don't build up the material in one coat; 200 micron is the maximum thickness of each coat which should be cured for at least 24 hours before applying the next coat.

Coverage

2.0m²/ liter at 500 microns (WFT) in two coats.

Cleaning

Tools and equipment can be cleaned immediately by using **THINERCOAT 10** organic solvent.

Package

5 liter pack (including colored base, and hardener).

Technical Properties

Specific Density	1.35 ± 0.05
Volume Solids (ASTM D 2823-91)	100%
Pot Life @ 20°C	3.0 hours
@ 35°C	1.5 hours
Tack Free Time @ 20°C	24 hours
@ 35°C	16 hours
Full Cure @ 20°C	7 days
@ 35°C	4 days
Time Between Coats @ 20°C	24 hours
@ 35°C	16 hours
Bond strength (ASTM D 4541)	
Steel	3.5 MPa
Concrete	1.5 MPa
Tensile Strength (ASTM D 412)	6.0 MPa
Tear Resistance (ASTM D 1004)	13 N/mm
Elongation at Break (ASTM D 412)	60%
Shore D Hardness (ASTM D 2240)	50
Abrasion Resistance (ASTM D 4060-95, CS-17 Wheel 500 gm)	100 cycles: 15mg 500 cycles: 75mg 1000 cycles: 90mg
Resistance to Hydrostatic Pressure (DIN 1048)	
Positive	> 13 bar
Negative	> 10 bar



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Crack Bridging (ASTM C 386)	Minimum 2mm
Water Vapor Transmission Rate (ASTM E 96-80)	0.8-1.3 g/m ² /day
Low Temperature Flexibility @ 0.5mm coating (ASTM D3111)	Pass at 26°C
Service Temperature	-2°C up to 80°C
Flammability	Non-flammable

Health and Safety

The material should be applied in a good ventilated area. Avoid inhalation of the vapors. Use goggles and vinyl gloves. In case of eye contact, rinse immediately with plenty of clean water, do not use solvent and seek medical attention immediately. The product complies with environmental and occupational health and safety standards ISO 14001 and OHSAS 18001.

Chemical Resistance:

The following chemicals spilled on applied samples for 7 days and found satisfy. Sea water, Sweet Water, Butanol, Ethyl Acetate, Toluene, Xylene, Citric Acid 5%, Acetic Acid 5%, Tartaric Acid 10%, Waste Food Stuff, Waste Food Stuff, Starch Solution 5%. Ammonia 0.5.

Storage and Shelf Life

Product should be stored at 25°C in dry conditions.
18 months in tightly closed container.

Flammability

EPOCOAT 400 is a nonflammable material. **THINERCOAT 10** is a flammable material. Do not expose to naked flames during application.