

# Poxy Floor EPU 450



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## Flexible Epoxy Polyurethane Coating

### Description:

Poxy Floor EPU 450 is 100% reactive, solvent free, two component, high build polyurethane coating. This system has excellent coating with high abrasion mechanical and chemical resistance.

### Uses:

Primarily designed for offshore or marine environments and sewage work applications such as aeration tanks, clarifiers, manholes and permanent submerged condition where chemical resistance is of paramount important.

Can be used as rust preventing coating for concrete and steel tanks and other surfaces subjected to chemical attack or wherever corrosion resistance and wearing resistance quality is required.

Waterproofing exterior walls or foundations and basements or other structures that are to be backfilled.

### Advantages:

- No primer required
- UV resistant
- Excellent chemical and abrasion resistance
- Long term corrosion protection
- Excellent resistance to underground environment
- Flexible coating
- Environment friendly

### Surface Preparation

The Concrete should be at least 28 days old and shall be free from any contaminants such as oil, grease, curing membrane, etc. This can be achieved by mechanical means such as mechanical scarifier, shot / sand blaster, etc. If the substrate is acid etched it should be thoroughly and the pot holes shall be levelled with Poxy Putty 500 to achieve an even surface.

### Note

If the moisture content of the concrete is more than 5% or if raise in dampness is observed, the technical department of BuilChem can be contacted.

### Steel Surfaces

Steel must be free of excessive, rust scale, pollution fallout, dirt, grease surface chemicals or other foreign contaminants prior to blast cleaning.

A careful examination must be made to ensure that these contaminants along with any accumulated oil, smoke, wax or any other material which could interfere with adhesion has been removed.

All Sharp edges, welds, weld spatter, burrs and any other sharp prominence shall be ground smooth, excessive rust scale shall be removed by mechanical means prior to blast cleaning.

On steel tank applications all seams and joint must have a continuous smooth interior weld.

Steel surfaces subject to immersion conditions must be blast cleaned to white metal (SSPC-SP5) with minimum anchor profile of 2+mils. Steel subject to non-immersion conditions shall be cleaned to near white (SSPC-SP10) with a minimum anchor profile of 2.0 mils.

Abrasive blast cleaning shall not be performed when surface temperature of the steel is less than 5<sup>o</sup> F. (3<sup>o</sup> C) above the dew point of the ambient air or where there is a possibility that the blasted surface will become wet before the cooling can be applied.

The blast cleaned surface shall be coated by the end of the same work day, but in any event before any visible rusting occurs, if rusting occurs after blast cleaning the surfaces shall be re-blasted before coating.

### Concrete Surfaces

Concrete which will be subject to immersion conditions must be blast cleaned. Concrete subject to non-immersion conditions can either be cleaned to roughen the surface or acid etched. The surface preparation used must remove all loose, weak or powdery concrete to expose all voids and provide the necessary profile for mechanical adhesion of the Poxy Floor EPU 450

Concrete surfaces which are contaminated with oil, grease, dirt, chemicals etc. shall be cleaned prior to blasting or acid etching with approved biodegradable chemical cleaner and water. Cleaning shall be accomplished using mechanical scrubbers and high-pressure power washing equipment as necessary to remove strongly adhering contaminants. Rinse thoroughly to remove all traces of the cleaner.

Blasting must produce an even profile. After blasting all grit, dust, loose material, dirt and foreign objects shall be removed by sweeping or vacuuming.

Any resurfacing or repairs necessary to achieve a sound, consistent surface, free of blowholes, voids, cracks or spalling shall be completed prior to priming. Use REP S52 to fill voids and blowholes and to resurfaces spalled areas. Blasting or acid etching is not necessary.

Over surfaces which have been repaired with REP S62, Epoxy injection, urethane caulk or other appropriate patching material for repairing cracks and large voids in the concrete surface.

Patching and crack repair shall be completed in strict accordance with manufacturer's recommendations.

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## Mixing / Application

Poxy Floor EPU 450 comprises two components, base resin, and hardener. The hardener (Part B) shall be poured into the base resin (Part A) in the mixing vessel and shall be mixed thoroughly for 2 minutes using heavy duty slow speed drilling machine fitted with paddle.

The areas to be laid shall be marked for every 1/2 packs to achieve a uniform thickness as recommended. For large areas planning of laying sequences is essential. For more information, please contact BuilChem technical department.

## Chemical Resistance

Acetic Acid, 5%	-----Good
Alkalies	-----Excellent
Ammonia	----- Excellent
Battery Acid	----- Excellent
Hydrochloride Acid, 10%	---Good
Methylene Chloride	----- Poor
Salt Water	----- Excellent
Oil	----- Excellent
Ethylene Glycol	----- Excellent
Tap Water	-----Excellent
Ground Water	-----Excellent
Sewage Water	-----Excellent

## Engineering Data

Finish	- Semi Gloss
Colors	- Off-White and Gray
Solid by Volume	- 100%
Theoretical Spreading Rate	- 2.5 m <sup>2</sup> /Liter & 400-micron dft
Specific Gravity	- 1.55+- 0.04 @ 25°C
Dry to touch	- 5 Hours @ 25°C
Pot life	- 1 Hour @ 25°C
Recoat Interval	- 6 Hrs. – 24 Hrs.
Water Absorption	- Nil (ASTM C 413)
Tensile Strength	-10 N/mm <sup>2</sup> (ASTM D412)
Elongation @ Break	- 25% (ASTM D412)

## Equipment / Tools

Shot / Sand blaster, Scabbler, Grinder, Masking tape, Trowel, heavy duty slow speed drilling machine fitted with suitable mixing paddle, Spiked Roller, Spiked Shoes, Brushes, etc

## Shelf Life

In unopened packs of POXY FLOOR EPU 450 has a life of 12 months when stored below 35°C

## Coverage:

1 Ltr / 2.5 m<sup>2</sup>

## Packaging:

The product supplied in 15Ltr Kit

## Cleaning:

All equipment's should be cleaned of uncured product using Solvent.

## Storage:

Keep the product in dry and sheltered place, at the temperature between 5°C and +30°C. In these conditions its stability is of at least 12 months.

## Health and Safety:

Keep the product away from sources of ignition. Containers should be tightly sealed when not in use.

- In the event of fire, extinguish with Carbon Di Oxide or foam type extinguisher.
- During application, wear appropriate protective clothing, goggles and respiratory equipment.
- Avoid contact with skin, eyes and inhalation of vapor.
- Ensure proper ventilation at working place.
- In case of contact with skin, rinse with water and again wash thoroughly with soap and water.
- In case of contact with eyes, rinse with plenty of water and seek medical advice accordingly.
- In ingested, do not induce vomiting. Seek medical attention immediately.

Please refer to the product safety data sheet for further details.

## Important Note:

The information contained herein is to the best of our knowledge true and accurate and is given in good faith, based on practical experience and applied testing Site or application – specific conditions may vary from those described here and thus the correct and successful use of the product is beyond our sphere of influence. If in doubt, the user should therefore first carry out sufficient tests to ensure the product is suitable. Legal liability cannot be accepted, either solely based on the content of this information sheet or any verbal advice given.

All **BuilChem** datasheets are updated on regular basis. It is the user's responsibility to obtain the latest version.

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