

EPOLAC EPOXY HIGH BUILD COATING TWO PACK

➤ Scope

Epolac epoxy high build coating is an epoxy coating based on solvent less epoxy system, whereby very high solids can be put into a paint film, which can be sprayed by airless spraying system to get film thickness of 75-100 microns in a single coat. It can also be brushed because this system is self leveling. The advantage of this system is to obtain higher resistance to various chemicals and solvents. In general chemical resistance of epolac epoxy high build coating can be 2 – 3 times, in comparison to the coating applied with conventional epoxy system like epolac. Epolac epoxy high build coating film is highly flexible because of which better film build can be obtained. Adhesion, abrasion resistance and other properties are similar to that of epolac.

➤ Areas of Application

All chemical plants, pipelines wagon coaches, bridges and also all type of floors where the surface has to be dust free and petrol/diesel/chemical resistant. Ideal for urea prill towers.

➤ Surface Preparation

To ensure long lasting protection, the surface, to be painted should be free from rust; dust; grease and loose particles. For best results, mild steel substrate should be blast-cleaned to grade sa 2½ of swedish specification or is specification 1477-1971 (part i) followed by an immediate application of epolac epoxy primer zinc phosphate, before application of this product. A unique feature of this product is that a dry film thickness of 250-350 microns can be obtained by airless spraying in 3 multipass coats; the interval between each multipass coat should be of 2 hours. One multipass coat consists of 4 single crisscross passes applied at an interval of 10 minutes of each other. It will be interesting to know that the dry film thickness is uniform. Better results can be obtained when airless spray system is used because single coat application of the film will yield 100 microns thickness. Galvanised steel or aluminium surface must be given a coat of rosalee metaprime-h, which is known as two-pack wash primer, under the epolac epoxy primer. Cement concrete surface should be washed with 3–5% phosphoric acid to eliminate alkalinity. Using rosalee metaprime-h on the cemented surface is recommended because phosphoric acid is a constituent of metaprime which is helpful in eliminating alkalinity.

➤ Technical Data

- APPEARANCE : Base : as per colour shade.
Hardener : pale brown clear liquid
- VISCOSITY : Base : 9 – 11 poises
Hardener : 20-22 secs.in fc/4 @ 30⁰c.
- MIXING RATIO : Base (3) : hardener (1) by volume.
- VISCOSITY OF THE MIX : 3 - 4 poises.
- WEIGHT / LITRE : Base : 1.45 – 1.50 kgs.
Hardener : 0.90 kg.

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• THINNER TO BE USED	:	None	
• DRYING TIME	:	Touch dry	: 45 minutes
		Surface dry	: 1½ - 2 hrs.
		Thumb impression free	: 6 hrs.
		Hard dry	: over night
• RECOATABILITY TIME	:	four hours	
• COVERING CAPACITY	:	5 – 6 sq. Mtr. Per litre	
• DRY FILM THICKNESS	:	100 microns single coat.	
• POT LIFE	:	More than six hours.	
• FLEXIBILITY	:	Passes 1/8” bending	
• IMPACT TEST	:	Passes one kg. From a height of 18”	
• CROSS HATCH TEST	:	Passes	
• SALT SPRAY RESISTANCE	:	1000 hrs. Over epolac epoxy zinc rich primer & epolac epoxy mio primer	
• CORROSION RESISTANCE	:	See the chart appended	

➤ Directions for Use

Prepare the surface as recommended under “surface preparation.” Stir the base thoroughly and mix the hardener in recommended proportion. Ensure the surface is free from rust, oil or grease. Ideal primer underneath should be epolac epoxy zinc rich primer and epolac epoxy mio primer, one coat each. In case of concrete, rosalee metaprime-h (two pack wash primer) should be applied before application of epolac epoxy high build coating. Another point to be remembered is : abrade the surface of a primer, which has to be used under epolac epoxy high build coating and ensure there are no stains of grease or oil.

➤ Notes

Do not dilute the mixed epolac epoxy high build coating, which being self leveling, can be brushed, roller coated and can also be used with airless gun. Mix only sufficient quantity that can be used up within five hours (before the pot life is over) wash brush, roller or gun immediately after use to prevent hardening or choking.

Also offered is a cheaper version, which is based on conventional epoxy.

➤ Corrosion Resistance Chart

Sand blasted steel sheets were coated with epolac epoxy high build clear, to attain dry film thickness of 300-350 microns. The panels were cured in air, for 10 days and were immersed into solutions of various chemicals. Such panels were constantly observed every week, for a period of six months. Constant temperature was maintained : 30°c and the results are tabulated hereunder:

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ACIDS

30%	Sulphuric acid	:	Excellent
70%	Sulphuric acid	:	Heavy blisters after 3 months
10%	Hydrochloric acid	:	Excellent
10%	Nitric acid	:	Excellent
40%	Phosphoric acids	:	Excellent
50%	Acetic acid	:	Excellent
	All types of fatty acids	:	Excellent

ALKALIES

30%	Caustic soda	:	Excellent
	Concentrated ammonia	:	Excellent
50%	Sodium carbonate	:	Excellent

SALTS

30%	Ammonium chloride	:	Excellent
10%	Sodium sulphate	:	Fails after 4 months
10%	Calcium hypo chlorite	:	Same as above
10%	Copper sulphate	:	Discolours after 3 months.

SOLVENTS

	Xylene	:	Excellent
	Toluene	:	Excellent.
	Ethyl acetate	:	Slight softening
	Butyl alcohol	:	Same as above
	95% ethanol	:	Good

➤ Disclaimer

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