

1300 EPOXY TANK

Description

EPOXY TANK 1300 is a two-component epoxy-phenolic coating (epoxy novolac), hardened with aliphatic amine. It is specially designed for the internal coating of metallic and cement tanks and pipelines, where high resistance in chemicals is demanded. EPOXY TANK 1300 presents excellent resistance in unleaded gasoline with high content in methanol and ether, gasoline, diesel, in acid and alkaline solutions and in many solvents (like alcohols, white spirit etc.). It doesn't have resistance to yellowing. It is not suitable for external use. It presents excellent durability in fresh and sea water, in sewage water and biological treatment. It is not recommended for external use. Due to its high chemical resistance, it is suitable for use on industrial floors, in areas with heavy chemical and moisture exposure, and in food production and processing facilities. It is certified by a European Institute (according to ISO 2812-1) for the storage of fuels (diesel, unleaded gasoline etc.) and for permanent contact with acid (hydrochloric, sulfuric acid, etc.) or alkaline solutions (ammonia, sodium hydroxide, etc.). It is available also in 1300 GF which contains glass flakes for reinforcement and increase of mechanical properties.

Technical Information

Shade White
 Gloss Glossy
 Solids content (A+B) 92% by volume
 Specific Weight A component 1,50 - 1,56 kg/lit (depending on the base)
 B component 1,03 kg/lit
 A+B 1,40 ±0,05 kg/lit (EN ISO 2811)
 Theoretical Coverage 6,60 m²/kg (100µm) (9,2 m²/lit)
 Mixing Ratio A:B-5:1 by weight (A:B-3,2:1 by volume)
 Resistance in temperature up to 120°C (dry exposure) – For permanent contact with fuel up to 80°C
 Pot life 30-40 minutes (25°C) - Temperature increase reduces the pot life
 VOC* A: 80 g/lit, B: 0 g/lit
 Ready for use (A+B+5% thinner): 130 g/lit
 EU LIMITS (2010): 500 g/lit
 SUBCATEGORY: j –two-pack performance coatings, anticorrosion finish- coating of cement surfaces, Type SB

Drying Time
(10°C)
(15°C)
(25°C)
(35°C)

Dust free	Drying	Recoating (Min)	Recoating (Max)	Full drying
7-8 hr	16 hr	14 hr	48 hr	14 days
4-5 hr	14 hr	12 hr	36 hr	10 days
2-3 hr	10 hr	9 hr	30 hr	7 days
1-2 hr	8 hr	6 hr	18 hr	5 days

(The above times are indicative and depend on the thinning percentage, moisture and temperature)

The contact between the coating and the storage material must be done 2-3 weeks after the coating is fully dried, to achieve complete cure.

Surface Preparation

Old tanks must be clean from remaining traces of fuels or solvents. The surface where the product will be applied should be clean from frail pieces or dust, dry and stable, protected from underneath moisture.

Metallic surfaces: For better results, sandblast is recommended at least Sa 2, according to ISO 8501-1 or for prolonged exposure of the surfaces Sa 2 ½ with profile 30µm. After sandblasting the surface must be totally cleaned. Primers, inorganic zinc rich primer 851, zinc rich epoxy primer 751 and epoxy primer 812 are recommended for high demands of anticorrosive protection of metallic surfaces.

Cement surfaces: Cement surfaces are often covered by a plaster layer or sprayed with cement. These layers are weaker than the core of the cement with which they are loosely attached. These

layers must be removed. The cleaning of the cement should be done with solvents, but a safer way is sandblasting. Before the application, the surface must be totally clean and dry. The use of 850 as an epoxy primer is suggested for cement surfaces, especially those of low quality. The high penetration of this primer makes the substrate stable, connects the remaining dust and seals or shortens the pores. After priming, any existing imperfections (cracks, holes) should be filled using epoxy putty 800 (A+B). The surface should be coated with the final coating 24 hrs after priming.

Application

Before the application of 1300, very well mixing between the two components should be done. 5 parts of A component are mixed with 1 part of B component by weight. If necessary, use thinner 1131 5%. If the mixing is done using a mechanical agitator, it is important that it doesn't operate for a prolonged time or with high velocity because the heat produced from the friction may affect the drying time. Do not mix large quantities because the pot life of the mixture is small.

After mixing, the product must be used within 30-40 minutes.

It is applied with airless (nozzle 0,019-0,025in), brush and roller. Thinning with 1131 up to 5%, only if it is necessary.

It is recommended to apply at least two layers.

Suggested film thickness	150-250 µm/layer, 400-750 µm total
Application temperature	10-35°C
Substrate temperature	10-30°C
Due point	The substrate temperature must be at least 3 °C higher than the dew point.
Relative humidity	< 70%
Suggested thinners	1131 The choice of suitable thinner depends on the application method, the temperature and the humidity conditions. For the suitable choice, please contact the technical department of our company.

The above conditions must be followed both during the application process and throughout the drying.

It should not be applied when rain is expected (at least 24h).

It is necessary to protect the coating from the moisture (>80%) and the rain for about 24 hours after the application. Moisture can cause white or/and sticky surface and can affect drying and recoating time. The surface where the product will be applied on must be clean and dry.

If you exceed the maximum recoat time, the surface should be mechanically treated before repainting.

Storage

Up to 12 months in a dry and cool place. (10-30°C).

Safety

Please consult the Material Safety Data Sheet. Available upon request.

CHEMICAL RESISTANCE ACCORDING TO ISO 2812-1
 Resistance - temperature 25 ° C - film thickness 2X200µm

INSTRUMENT CONTROL	7days	1month	3months	6months	1year	2years
Unleaded gasoline	✓	✓	✓	✓	✓*	✓*
Oil (diesel)	✓	✓	✓	✓	✓	✓*
Petroleum naphtha	✓	✓	✓	✓	✓	✓
Xylene	✓	✓	✓	✓	✓	
Butyl acetate	✓	✓	✓	✓	✓	
Engine oil	✓	✓	✓	✓	✓*	✓*
Ethylene glycol	✓	✓	✓	✓	✓	✓
Butyl glycol ether	✓	✓	✓	✓	✓	✓
95% isopropyl alcohol	✓	✓	✓	✓	✓	✓
95% ethyl alcohol	✓	✓	✓	✓	✓	✓
Sulphuric acid 98%	✓	✓	✓*	✓*	✓*	✓*
Sulphuric acid 80%	✓	✓	✓*	✓*	✓*	✓*
Sulphuric acid 32%	✓	✓	✓	✓*	✓*	✓*
Hydrochloric acid 32%	✓	✓	✓	✓	✓*	✓*
Hydrochloric acid 16%	✓	✓	✓	✓	✓*	✓*
Phosphoric acid 42.5%	✓	X				
Phosphoric acid 28%	✓	✓	✓	✓	✓*	X
Phosphoric acid 10%	✓	✓	✓	✓	✓	✓
Nitric acid 34%	✓	✓	✓*	X		
Nitric acid 17%	✓	✓	✓	✓	✓*	
Ammonia 13%	✓	✓	✓	✓	✓	✓*
Ammonia 20%	✓	✓	✓	✓	✓	✓
NaOH 10%	✓	✓	✓	✓	✓	✓
NaOH 50%	✓	✓	✓	✓	✓	✓
Methyl ethyl ketone	✓	✓	✓	X		
Acetone	✓	✓	✓	X		
Methanol	✓	✓	✓	✓	X	
H ₂ O ₂ 50%	✓	✓	✓	✓	✓	✓
H ₂ O ₂ 25%	✓	✓	✓	✓	✓	✓

✓: OK RESISTANCE, OK SHADE

✓*: OK RESISTANCE, CHANGE SHADE

X: DESTRUCTION

This Technical Data Sheet replaces and cancels every previously issued. The information, instructions, recommendations and specifications mentioned in this data sheet, represent the results and experience obtained from testing under controlled or specially adapted conditions. The accuracy and relevance of these results to the actual conditions, in which you apply the product, must be determined and depend only on the purchaser and/or applicator.