TELPOX T300

Two-component epoxy glossy enamel

hostemix®

Composition

Mixture of inorganic pigments and fillers in solution of low molecular epoxy resin in organic solvents.

Characteristics and use

The enamel is determined for top glossy coating of wood, metals, walling, some plastics etc.
Cured coat is resistant to humidity, various chemical substances (especially alkali), oils, fuels and many types of solvents. It is resistant to temperatures up to 120 °C. Due to environmental effects the coat flouring and gloss loss can occur. The coat can be smoothed and shined with paste, polish. Before use the enamel is mixed properly with the hardener in specified ratio.

- very good mechanical resistance
- very good chemical resistance
- resistant to dry heat 70 – 120 °C
- high lifetime of coat
- TELPOX T300 is suitable for **direct** food contact (selected shades)
- suitable for the tinting system HOSTEMIX

Application area

Interior (due to environmental effects the coat flouring and gloss loss can occur), e.g. metal tanks, reservoirs for oil and fuels, piping, machines, washable surface of walls, coating of concrete floors, operating constructions.

Shades

According to BALT, RAL, NCS and ČSN colour chart and the others according to individual customer requirements.

Physical properties

Flow time	100 - 140 s (cup Ford Ø 4 mm)
Weight solids	> 65 % (not hardened mixture)
Volume solids	50 % (hardened mixture)
Flash point	24 °C
Density of product	1300 - 1500 kg/m^3
Density of hardened mixture	1180 - 1300 kg/m^3

Emission limits

VOC: 0.31 – 0.36 kg/kg of hardened mixture	TOC: 0.26 – 0.31 kg/kg of hardened mixture
This product is for professional use only. Not for DIY.	

Properties of cured coat

Hiding power	degree 1 - 2
Gloss	degree 1 - 2
Hardness / Persoz	up 30 % in 5 days

Chemical resistance

Medium	**resistance to liquids (EN ISO 2812-1)**
20 % NaOH	resistant
20 % H_2SO_4	resistant
Diesel	resistant
Gasoline 98	resistant
Gasoline 95	resistant
Hydraulic oil	resistant
Engine oil	resistant
Ethyl alcohol	resistant (short term exposure)
Triethanolamin	resistant

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Drying time

Surface temperature		10 °C	15 °C	23 °C
Dust free	***TELHARD POX***	4 h	3 h	1 h
	TELHARD POX RAPID	2 h	1.5 h	40 min
Dry through	***TELHARD POX***	16 h	12 h	8 h
	TELHARD POX RAPID	12 h	8 h	6 h
Dry film thickness DFT		35 µm	35 µm	35 µm

Spreading capacity

Wet film thickness WFT	80 µm	160 µm
Dry film thickness DFT	40 µm	80 µm
Theoretical spreading capacity	9.5 – 10.6 m^2/kg	4.8 – 5.3 m^2/kg

Thinning

TELSOL POX, BALTECH S6300, to thin after hardening.

Hardening

Hardener: TELHARD POX, TELHARD POX RAPID

Mixing ratio: **100** weight parts TELPOX T300 : **25** weight parts TELHARD POX.
100 weight parts TELPOX T300: **11** weight parts TELHARD POX RAPID

For TELHARD POX the pot life of the hardened mixture is 8 hours (20 °C). For TELHARD POX RAPID the pot life of the hardened mixture is 2 hours (20 °C).

Shade stability

Epoxy coatings have after the application a tendency to get yellow. This has no effect on technical parameters.
Hardener TELHARD POX and especially TELHARD POX RAPID during storage, they tend to get dark and can therefore influence the shade of the mixed product. This has no influence on the protective properties of the system.

Thermal resistance

Thermal resistance of the cured coat: up to 120 ° C: without restrictions, the hardness of the coating film gradually increases during long-term loading and the flexibility decreases. At temperatures of 120 ° C to 150 °C, visual changes, gradual increase in hardness, decrease in flexibility and embrittlement of the coating film may occur.

Surface preparation

For corrosive environment C2, C3 and C4 the steel surface must be before the prime coat application prepared by blast-cleaning to degree Sa 2 ½ according to EN ISO 8501-1 (welds and edges must be finished according to EN ISO 8501-3). Galvanized and aluminous surfaces must be treated according to EN ISO 12944-4, čl. 12.1. and 12.2.
For corrosive environment C1 the surface must be clean, dry, free of grease and rust rest, mechanically cleaned to degree St 2 – St 3 before application of the prime coat. Galvanized surfaces must be cleaned with ammoniac water with detergent.
Mineral surface must be matured (min. 30 days), compact, free of dust, grease, remains of petroleum products and asphalt and other impurities. The surface must be insulated against moisture. The mineral substrate must be penetrated with a suitable impregnant.
It is necessary to clean, degrease and remove poorly adhering old coats from previously painted surfaces. To ensure compatibility of new coat with old one it is recommended to contact the producer or carry out test reference coating on surface of 1 m^2.

Application conditions

Stir the paint properly with a mechanical stirrer before use so that there will be no sediment on the bottom and harden. To thin and filter if it necessary.
The temperature of the paint itself should be 15-25 °C. If the paint temperature is below 15 °C, a higher dilution is required and this can subsequently cause problems with the formation of a homogeneous paint film and a longer drying time.
For coating / spraying outside the suitable weather forecast is necessary. During rain, fog, creation of condensation water, effect of aggressive gases and during wind with strong content of dust the coating work must be suspended and can be restart after absolute drying of surface-treated material. Minimal air temperature for application is 10 °C, temperature of painted surface must be 3 °C above dew point. Temperature and relative humidity must be measured in proximity of painted surface. The surface

temperature must not be higher than 40 °C. Relative humidity must not be higher than 75 %. Lower temperature and higher humidity during an application and a drying and high thickness of applied coats markedly slow down drying and hardening of the coat. Imperfectly dried surface can cause problems with adhesion of paint to surface or with adhesion between individual coats. In addition it can negatively affect overall appearance of the paint film.
At lower temperatures, it is only possible to use TELHARD POX RAPID hardener.

Workflow

1. Apply 1 coat of epoxide two-component epoxy primer TELPOX P100. Recoating is possible after 24 hours of drying (20 °C). Drying and maturing of coat can be accelerated by drying at the temperature 60 – 100 °C during 60 – 30 minutes.
2. Apply 2 to 3 coats of two-component epoxy enamel TELPOX T300. Recoating is possible after 24 hours of drying. Drying of coat can be accelerated by drying at the temperature 60 – 100 °C during 60 – 30 minutes.

The paint is applied by cross spraying or in parallel strips to achieve a final uniform layer. First it is necessary to treat problematic places (corners, edges, welds, surface defects).
It is very important to apply each coat in a uniform layer, in a thickness specified by the specific paint system. Consumption of paint must be checked to avoid excessive thickness, to avoid splashing, cracking and solvent retention.
For larger compact areas always use the material from the same batch. Using the same batch can guarantee the same shade of the colour. We recommend to mix the content of the individual cans by homogeneous mixing.

Optimal thickness of system

The optimal thickness and composition of the paint system depends on the aggressivity of atmosphere and on the expected durability of a protective system. The selection of an appropriate system should be in accordance with EN ISO 12944-5: 2018.

Application

Airless/AirMix spraying (10 - 20 % thinning depending on type of device)
Conventional spraying (recommended viscosity 25 – 30 s / cup Ford ∅ 4 mm; 15 – 25 % thinning)
Brush and roller (nylon) (recommended viscosity 60 - 80 s / cup Ford ∅ 4 mm; 5 - 10 % thinning)

Application data

Data for conventional spraying
Spraying gun e.g. EST 115, EcoGun 116, EcoGun 246
Nozzle according to desired capacity 1.2-1.6; Air pressure 2.5 – 3 atm.

Data for airless spraying Airless/AirMix (tested on the device EcoPump VP 55 445, 64:1 gear ratio, in combination with air assist spraying gun K 90 (Airless) or EcoGun 2100 (AirMix) (DÜRR))

Device	Nozzle	Pressure on nozzle	Thinning
AirMix	0.009 inch (0.23 mm)	12-18 Mpa (120-180 atm) air assist 1.2-1.8 atm	10-20 %
AirMix	0.011 inch (0.28 mm)	12-18 Mpa (120-180 atm) air assist 1.2-1.8 atm	10-20 %
Airless	0.009 inch (0.23 mm)	12-18 Mpa (120-180 atm)	10-20 %
Airless	0.011 inch (0.28 mm)	12-18 Mpa (120-180 atm)	10-20 %

Recommended filter of spraying gun yellow 100/149 (mesh/ µm), spraying angel 20 – 60°. It is not recommended using free adjustable nozzle.

Handling

Read the instructions in the Safety Data Sheet before use and follow all safety instructions and regulations. The product contains organic solvents. Follow basic hygiene rules. Do not eat, drink or smoke while using this product. Avoid contact with eyes, skin or clothing. Wear protective gloves, eye protection, protective clothing. Ensure effective ventilation of the workplace.

	For larger compact areas always use the material from the same batch. Using the same batch can guarantee the same shade of the colour. We recommend to mix the content of the individual cans by homogeneous mixing.
Packing	0,96 kg; 8 kg (tinted, not hardened product)
Storability	The product keeps the product qualities 5 years from production date in original closed container. To store in dry storage at the temperature 5 to 25 °C. Flammable liquid II. hazard class.
Disposal of packing and waste	Hand over the used, properly empty packing at the collection point of the packing waste. Dispose the packing with the product rest at the place determined by the town for disposal of hazardous waste or hand over to the person authorized for hazardous waste disposal. Further see the product safety data sheet.