

TECHNICAL DATA SHEET

TELPOX P100 S

Two-component epoxy anticorrosive primer

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Composition

Mixture of inorganic pigments and fillers in solution of medium molecular epoxy resin in organic solvents with addition of additives and Zn phosphate.

Characteristics and use

The paint is determined for anticorrosive primers of metals, where it ensures perfect adhesion and anticorrosive protection of painting system. Before use the paint is mixed properly with the hardener in specified ratio.

- ♦ excellent adhesion to steel surfaces
- excellent anticorrosive properties
- very good chemical resistance
- ♦ excellent levelling

Application area

Exterior and interior with medium and high corrosive stress (production halls, laundry rooms, chemical plants) possibility to use especially on metal tanks, piping, machines, operating constructions, bridge constructions.

Shades

0100 white, 0110 grey

Physical properties

Flow time	medium, short (thixotropic character)
Weight solids	67 ± 2 %
Volume solids	47 % (hardened mixture)
Flash point	24 °C
Density of product	ca 1400 kg/m ³
Density of hardened mixture	ca 1330 kg/m ³

Emission limits

VOC: 0.37 kg/kg of hardened mixture	TOC: 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
Gloss / 60°	< 8
Pendulum hardness / Persoz	up 20 % after 24 h
Adhesion with crosshatch test	degree 0

Drying time

Surface tempera	ature	10 °C	15 °C	23 °C	23 °C
Dust free	TELHARD POX	< 120 min	< 60 min	< 60 min	2 h
	TELHARD POX RAPID	< 60 min	< 30 min	< 30 min	
Dry through	TELHARD POX	15 h	5 h	5 h	24 h
	TELHARD POX RAPID	5 h	2 h	2 h	
Dry film thickness	ss DFT	30 µm	30 µm	30 µm	60 µm

Spreading capacity

Wet film thickness WFT	85 µm	175 μm	255 µm
Dry film thickness DFT	40 μm	80 µm	120 µm
Theoretical spreading capacity	8.8 m ² /kg	4.4 m ² /kg	2.9 m ² /kg

Thinning

TELSOL POX, BALTECH S6300, to thin after hardening.

Hardening

Hardener: TELHARD POX, TELHARD POX RAPID, TELHARD POX RAPID 2

Hardener	Weight mixing ratio (primer : hardener)	Volume mixing ratio (primer : hardener)
TELHARD POX	100 : 17	4 : 1
TELHARD POX RAPID	100 : 7,5	10:1
TELHARD POX RAPID 2	100 : 7,5	10:1

For TELHARD POX the pot life of the hardened mixture is 8 hours (20 °C). For TELHARD POX RAPID and TELHARD POX RAPID 2 the pot life of the hardened mixture is 1 hour (20 °C).



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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 $^{\circ}$ C: without restrictions, the hardness of the coating film gradually increases during long-term loading and the flexibility decreases. At temperatures of 120 $^{\circ}$ C to 150 $^{\circ}$ 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 surface must be prepared by blast-cleaning to degree Sa $2\frac{1}{2}$ according to EN ISO 8501-1 (welds and edges must be prepared according to EN ISO 8501-3). For corrosive environment C1 the surface must be clean, dry, free of grease and rust, mechanically cleaned to degree St 2- St 3.

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 m².

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

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

 For exterior: apply 2 to 3 coats of two-component polyurethane glossy enamel TELPUR T300

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.

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 (0 – 5 % thinning depending on the type of device) Conventional spraying (recommended viscosity 25 - 35 s / cup Ford \varnothing 4 mm; 10 - 15 % thinning) Brush (recommended viscosity 60 - 80 s / cup Ford \varnothing 4 mm; 5 - 10 % thinning) Application by brush is recommended only for small areas and for corrections.



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Application data Data for conventional spraying

Spraying gun e.g. EST 115, EcoGun 116, EcoGun 246

Nozzle according to desired capacity 1.4-2.0; 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 EcoGun 2100 (DÜRR))

Device	Nozzle	Pressure on nozzle	Thinning
AirMix	0.011 inch (0.28 mm)	15-20 Mpa (150-200 atm) air assist 1.5-2.5 atm	5-10 %
AirMix	0.013 inch (0.33 mm)	17-23 Mpa (170-230 atm) air assist 1.5-2.5 atm	5-10 %
Airless	0.011 inch (0.28 mm)	15-25 Mpa (150-250 atm)	5-10 %
Airless	0.013 inch (0.33 mm)	15-25 Mpa (150-250 atm)	5-10 %

Recommended filter of spraying gun yellow 100/149 (mesh/ $\mu m),$ 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.

Packing

10 kg, 25 kg (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.

These data are only for information and their accuracy is influenced by the properties of individual materials and unpredictable factors during application. The user is responsible for correct use of the product according to the direction for use and for correct application of painting system, i.e. he must always evaluate all conditions of application, which could influence final quality of the top treatment. Therefore, we always recommend to the user to carry out the test for actual working conditions and type of surface applied. Above mentioned data are data, which influence individual working conditions and therefore they do not establish a legal claim. It is necessary to consult information outside the terms of this catalogue sheet with the producer.

The producer stipulates the right for the change in the catalogue sheets without previous notification.