



# **TELPOX P170**

Two-component epoxy anticorrosive primer high-built

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### Composition

Mixture of pigments, fillers and zincphosfate in solution of low and medium molecular epoxy resin in organic solvents with addition of additives.

# Characteristics and use

The paint is determined for anticorrosive primers of steel and light metals, where it ensures perfect adhesion and anticorrosive protection of painting system. The paint unites high solid content with a very short drying time. Due to its low solvent content, it is tolerant to most old paint systems and is therefore also suitable for repair coatings. The paint can be used even at very low temperatures, up to -5 °C. Before use the paint is mixed properly with the hardener in specified ratio.

- excellent adhesion to steel
- excellent anticorrosive properties
- during the curing process minimum change of the volume
- ♦ suitable for indirect food contact
- ◆ suitable for the tinting system HOSTEMIX

### **Application area**

Exterior and interior with medium and high corrosive stress (production halls, chemical plants, machines and equipment, metal and steel structures, foundry and metalworking products, etc.)

#### **Shades**

0106 - light grey (RAL 7035), 0111 - grey, 0840 - red brown and the others according to individual customer requirements.

### **Physical properties**

Flow time	thixotropic character	
Weight solids	≥ 85 %	
Weight solids	≥ 84 % (hardened mixture)	
Volume solids	72 % (hardened mixture)	
Flash point	> 30° C	
Density (product)	1650 - 1750 kg/m <sup>3</sup>	
Density (hardened mixture)	1500 - 1600 kg/m <sup>3</sup>	

### **Emission limits**

VOC: 0.16 kg/kg of hardened mixture	TOC: 0.135 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 / 60°	< 20
Pendulum hardness / Persoz	up 25 % in 2 days
Adhesion with crosshatch test	degree 0

## **Drying time**

Surface temperature	10 °C	23 °C
Dust free	2 h	1.5 h
Dry through	24 h	4 h
Fully cured	7 days	7 days
Dry film thickness DFT	100 µm	100 µm

## Spreading capacity

Wet film thickness WFT	110 µm	170 μm
Dry film thickness DFT	80 µm	120 µm
Theoretical spreading capacity	5.6 - 6 m <sup>2</sup> /kg	3.8 - 4 m <sup>2</sup> /kg

## **Thinning**

TELSOL POX, BALTECH S6300, to thin after hardening.

## Hardening

Hardener: TELHARD POX RAPID, TELHARD POX RAPID 2

	Weight mixing ratio	Volume mixing ratio
	( primer : hardener )	( primer : hardener )
TELHARD POX RAPID	100 : 15	4:1
TELHARD POX RAPID 2	100 : 15	4:1



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The pot life of the hardened mixture is 1 hour (23 °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  $^{\circ}$  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 C3, C4 and C5 the steel 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 finished according to EN ISO 8501-3). Aluminous surfaces must be treated according to EN ISO 12944-4, čl. 12.1. and 12.2. It is necessary to clean, degrease and remove poorly adhering old coats from previously painted surfaces

# 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 two-component epoxy primer TELPOX P170, optimal dry film thickness of one coat is 80 120 μm. Drying of one coat at least 2hours (20 °C).
- 2. Apply 1coat of two-component polyurethane single coat TELPUR S210, optimal dry film thickness is 80  $\mu$ m or apply 1 or 2coats of two-component polyurethane enamel TELPUR T330 HS, optimal dry film thickness of one coat is 60 80  $\mu$ m, recoating is possible by the system so-called "wet into wet".

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.



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**Application** 

Airless/AirMix spraying (0 - 10 % thinning depending on the type of device) Brush (recommended viscosity 60-80 s / cup Ford  $\varnothing$  4 mm; max.10 % thinning) Application by brush is recommended only for small areas and for corrections.

## **Application data**

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	0.013 inch (0.33 mm)	15-25 Mpa (150-250 atm) air assist 2.0-2.5 atm	0-10 %
AirMix	0.015 inch (0.38 mm)	15-25 Mpa (150-250 atm) air assist 2.0-2.5 atm	0-10 %
Airless	0.013 inch (0.33 mm)	20-25 Mpa (200-250 atm)	0-10 %
Airless	0.015 inch (0.38 mm)	20-25 Mpa (200-250 atm)	0-10 %

Recommended filter of spraying gun yellow 100/149 (mesh/  $\mu$ m), spraying angel 20 - 60°. It is not recommended using free adjustable nozzle.

We recommend using a powerful pneumatic device with a higher gear ratio of at least 56: 1. It is recommended to include a reverse valve into the pump.

Data for airmix spraying, e.g. WAGNER FINISH 270

Nozzle	Pressure on nozzle	Spraying angle	Filter of spraying gun
0.013 inch (0.33 mm)	0.5 MPa (5 atm)	20 – 60°	red 200/74 (mesh/µm)
0.015 inch (0.38 mm)	0.5 MPa (5 atm)	20 – 60°	red 200/74 (mesh/µm)

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

25 kg (tinted, not hardened product)

Storability

The product keeps the product qualities 24 months 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.

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