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Composition Mixture of pigments in solution of synthetic resins in organic solvents, hardened with aliphatic polyisocyanate.

Characteristics and use The enamel is determined for finish surface treatment, where there are high requirements desired on painted objects in demanding conditions in various environments. The coat is resistant to weather, yellowing, flouing, effects of various chemical substances, humidity and mechanical wear. It is produced in two qualities – GLOSS and MATT. Before use the paint is mixed properly with the hardener in specified ratio.
The final properties of coat are achieved after complete maturing in approximately 7 to 10 days.

- ◆ excellent weather resistance
- ◆ chemical resistance
- ◆ colour stability
- ◆ suitable for indirect food contact
- ◆ suitable for the tinting system HOSTEMIX

Application area Exterior and interior with medium and higher corrosive stress, e.g. chemical plants, ship yards, industrial zones, coating of locomotives, machines, piping, metal sheet and steel constructions.

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

Physical properties	GLOSS		MATT	
	Flow time (cup Ford)	150 – 200 s / Ø 4 mm		min. 75 s / Ø 6 mm
Weight solids	65 - 70 %		63 – 68 %	
Volume solids	56 %		50 - 55%	
Flash point	25° C		32 °C	
Density of hardened mixture	1160 - 1350 kg/m ³		1250 – 1370 kg/m ³	

Emission limits	VOC: 0.32 – 0.38 kg/kg of hardened mixture	TOC: 0.24 - 0.29 kg/kg of hardened mixture
	This product is for professional use only. Not for DIY.	

Properties of cured coat	GLOSS		MATT	
	Hiding power	degree 1 – 2		degree 1 – 2
bright red and yellow shades	degree 3		degree 3	
Gloss / 60°	> 80		20 - 40	
Hardness / Persoz	up 25 % in 2 days		up 20 % in 2 days	

Drying time	GLOSS		MATT	
	Surface temperature	15 °C	23 °C	15 °C
Dust free	3 h	150 min	2 h	1 h
Dry through	48 h	24 h	24 h	16 h
Dry film thickness DFT	40 µm	40 µm	40 µm	40 µm

Spreading capacity	GLOSS		MATT	
	Wet film thickness WFT	72 µm		72 – 80 µm
Dry film thickness DFT	40 µm		40 µm	
Theoretical spreading capacity	11 – 12 m ² /kg		9 - 11 m ² /kg	

Thinning TELSOL PUR 3, BALTCH U6003, to thin after hardening.
Other diluents (especially those containing alcohols) can significantly slow down the curing mechanism of the chemical reaction.

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Hardening

Hardener: TELHARD PUR

Mixing ratio GLOSS: 5.5 weight parts TELPUR T300 GLOSS : 1 weight part TELHARD PUR.

Mixing ratio MATT: 10 weight parts TELPUR T300 MATT : 1 weight part TELHARD PUR.

The pot life of the hardened mixture is 4 hours (23 °C).

Surface preparation

For corrosive environment C2, C3 and C4 the 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 prepared 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. 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 and can lead to reduced gloss or other irreversible surface defects such as graying and whitish haze. Both the paint and the object to be treated, as well as the surrounding environment, must have a suitable temperature. Condensation that occurs during or just after application can cause a matte finish and poor quality paint film.

If the paint film is prematurely exposed to standing water, the shade may change, especially in dark shades and at low temperature.

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.

Workflow

1. Apply 1 to 2 coats of TELPOX P100 two-component epoxy anticorrosive primer. Drying time 24 hours.
2. Local bonding with polyester putty (e.g. Rapid); sanding of bonded places
3. Sanding with sandpaper no. 280-320
4. Apply 2 or 3 coats of two-component polyurethane enamel TELPUR T300. Optimal thickness of one coat is 35 – 40 µm. Individual coats of paint system are applied by the system so-called "wet into wet" in interval 5-10 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.

The stability of some shades may be influenced by exposure to harsh chemical environments. But it does not affect a protective characteristics of the coating.

For some shades it may be necessary to apply an additional coat to ensure full hiding power.

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 (GLOSS 5 – 15 % thinning; MATT 10-20 % thinning)

Conventional spraying (recommended viscosity 25–35 s/ cup Ford Ø 4 mm; 15-25 % thinning)

Brush and roller (velour) (recommended viscosity 60 - 80 s / cup Ford Ø 4 mm; 5 – 10 % thinning)

Application by brush and by roller is recommended only for small areas and for corrections.

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 1.5 – 2 atm.

TELPUR T300 MATT

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	0,009 inch (0,23 mm)	12-18 Mpa (120-180 atm) air assist 1.0-2.0 atm	10-20 %
AirMix	0,011 inch (0,28 mm)	12-18 Mpa (120-180 atm) air assist 1.0-2.0 atm	10-20 %
Airless	0,009 inch (0,23 mm)	13-20 Mpa (130-200 atm)	10-20 %
Airless	0,011 inch (0,28 mm)	13-20 Mpa (130-200 atm)	10-20 %

TELPUR T300 GLOSS

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	0,009 inch (0,23 mm)	12-15 Mpa (120-150 atm) air assist 1.0-2.0 atm	10-15 %
AirMix	0,011 inch (0,28 mm)	12-15 Mpa (120-150 atm) air assist 1.0-2.0 atm	10-15 %
Airless	0,009 inch (0,23 mm)	12-15 Mpa (120-150 atm)	5-10 %
Airless	0,011 inch (0,28 mm)	12-15 Mpa (120-150 atm)	5-10 %

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.

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Packing	MATT: 8kg (tinted, not hardened product) GLOSS: 1kg; 8kg; 16kg (tinted, not hardened product)
Storability	The product keeps the product qualities 18 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.