

PUR-O-COAT T

Properties:

PUR-O-COAT T is a 2 component, water borne polyurethane top-coat paint, it is resistant to UV radiation, has low viscosity, can be delivered in transparent or pigmented (coloured) versions. *PUR-O-COAT T*, due to its low viscosity can penetrate readily; therefore, it has superior adhesion property on the surfaces which has less absorption capability. The product is easy to apply and easy to clean.

It is resistant to fresh water, sea water and waste water depending on the quantity applied. At the same time, it is resistant to mineral oil, lubrication agents, fuel, most diluted acids and bases, salt solutions (see relevant resistance list. Further information could be obtained upon request.). Moreover, it has high resistance to ultraviolet and weather conditions. The protective layer *PUR-O-COAT T* has high mechanical resistance when completely cured and increases wear and scratch resistance of covering material.

PUR-O-COAT T can be used in both interior or exterior areas; directly on suitably primed concrete surfaces or self leveling type synthetic coatings such as polyurethane, epoxy, polyurea and similar products.

PUR-O-COAT T has excellent bonding properties to polymers such as polyurethane, acrylic, epoxy, polyurea, as well as suitably primed concrete and wood.

Technical Data:

Binder type	:	Polyurethane			
Density (25°C) (DIN 53217)	:	Transparent [g/cm ³]	<i>Mat</i>	<i>Semimat</i>	<i>Gloss</i>
		<i>Main Componente</i>	1.02 ± 0.05	1.01 ± 0.05	
		<i>Mixture</i>	1.04 ± 0.05	1.03 ± 0.05	
		Coloured [g/cm ³]	<i>Mat</i>	<i>Semimat</i>	<i>Gloss</i>
		<i>Main Componente</i>	1.03 ± 0.05	1.08 ± 0.05	1.18 ± 0.05
		<i>Mixture</i>	1.04 ± 0.05	1.09 ± 0.05	1.17 ± 0.05
		depending on the colour			
Solid content	:	~ 57 %			
Viscosity (25°C)	:	Transparent [mPas]	<i>Mat</i>	<i>Semimat</i>	<i>Gloss</i>
		<i>Main Componente</i>	300 ± 80	150 ± 50	
		<i>Mixture</i>	600 ± 80	330 ± 50	
		Coloured [mPas]	<i>Mat</i>	<i>Semimat</i>	<i>Gloss</i>
		<i>Main Componente</i>	400 ± 250	750 ± 250	700 ± 250
		<i>Mixture</i>	750 ± 250	1650 ± 250	1300 ± 250
		depending on the colour			
Mixing ratio	:	A : B = 5 : 1 (pbw)			
Pot-life (20°C)	:	~ 6 h			
Re-coating time (20°C)	:	minimum 24 h, maximum 48 h			
Drying time*	:	~ 1 h (touch dry); ~ 6-8 h (opening to traffic)			
Full cure (20°C)	:	7 days			
Application temperature	:	5 - 30 °C			
Permissible rel. air humidity	:	40 - 85 %			
Colours	:	transparent, RAL colours / upon request			
Surface gloss	:	semimat			
Package size (standard)	:	0.98 or 5 kg			
Consumption	:	100 - 150 g/m ² generally per work			
Cleaning of tools	:	by suitable cleaners			

Risk category definition	:	see valid safety documents
Wear by Taber-Abraser	:	~ 37 mg (ASTM D 4060)
Pendel hardness	:	~ 100 s (according to König, DIN EN ISO 1522)
Estimated VOC incl. H ₂ O	:	~ 19 g/l

(* 150 µm wet film thickness, 50 % air humidity)

Processing:

Preliminary work on substrates

Soundness and carrying capacity of the surface should be checked prior to starting to work. Concrete surfaces should be cleaned from dust, grout, dirt and separating substances. The surface should be cleaned by sand blasting (or similar) or mechanical grinding methods and vacuum cleaned. Preparation by these methods will ensure adhesion, roughness and absorption capacity of the surface. A mechanical abrasive method is required for suitable surface preparation in high density surfaces (vacuumed concrete or surface hardened mortar). In magnesia containing surfaces, wax or oil saturated surfaces should be completely removed. Surface soundness must be at least 1.5 N/mm² (minimum value is 1.0 N/mm²) after preparation of the surface. Humidity must not exceed 4 % for cement based floors. Residual moisture in anhydride mortars should be below 1%. It is possible to reduce the application waiting time of the coating by use of suitable primers (*HYDROPOX EPG*) in concretes with residual humidity. Temperature of the substrate must be at least 3°C above dew point. Coated surfaces should be protected at all times from negative water pressure that might exist in the substrate.

Mixing

PUR-O-COAT T is packed in two separate cans, Component A (resin) and Component B (hardener), according to its mixing ratio. The container of Component B of the material should be completely emptied into the container of Component A. In order to have homogeneous mixture, it should be mixed by an electric mixer at a low speed (300 rpm). Material in the bottom and side of the container should be mixed in as well. After 3 minutes of mixing, the material should have a homogenous, uniform appearance and colour. Mixed material should not be used directly from its original container. It should be discharged into another clean container and mixed again for a further minute. The ambient temperature should be between 15-25°C.

Application

Mixed *PUR-O-COAT T* is applied on to the suitably prepared substrate by means of squeegee or foam roller. The best result is obtained by parquet varnish rolls used for water borne systems which do not leave yarn. Application could also be realized by suitable spraying systems. In order not to leave overlapping layers, the surface should be rolled again within 8-10 minutes. Otherwise roll traces could be seen. In case over coat application time is exceeded or in old coverings or in repaired surfaces, it is recommended to roughen the surface before application. Usage amount is 100-150 g/sqm per application and this could vary depending on the condition of the surface. In order to improve the appearance, mechanical and chemical characteristics of the product, a second layer is required (considering the re-coat period). Consumption for this layer is also 100-150 g/sqm. Over-consumption must not be realized, otherwise foaming might occur.

Substrate temperature should be considered as well as the ambient temperature in the working area. Chemical reactions are generally slower in low temperatures. In this situation, application time, re-coating time and open to traffic time are extended. Furthermore, consumption per square meter will increase due to increase in mixture viscosity. In cases where the ambient temperature is high, chemical reaction rate is fast and as a result, operation time is short. Relative air humidity should also be considered during application. In order *PUR-O-COAT T* to harden completely, substrate average temperature should not be below working ambient temperature. After the application of the material, the surface should be protected from direct contact with water for 24 hour (23°C air humidity 50%). In case it is exposed to water in this period, foaming may occur on the surface.

Storage conditions / physiological approach/ protective measures/ wastes:

Sealed and full packaging should be stored in dry conditions between 15-25°C temperatures. It should not be exposed to direct sunlight. Shelf life of the material under above conditions is 6 months. Should be protected from freezing at all times.

PUR-O-COAT T is not hazardous when fully cured. During the application of the product, it is subject to safety measure rules in respect of physical, technical safety, ecology and toxicology. Transportation and waste disposal are subject to scope of safety measures. Professional associations' rules on polyurethane and isocyanate working conditions must be followed..

Recommendations on use and working with this product are based on our experience. It is valid under normal conditions, it is not binding. In case of; application on substrates not mentioned in this data sheet, unsuitably prepared substrates or unsuitable application methods, the product guaranty is not valid.

Claims in relation to above warnings and recommendations are not valid. But in case, our intentional error is proved, we accept the result thereof. In this case the user must prove that he/she acted in accordance with the rules and that he/she delivered us required information in time. Protections of third parties' rights are taken into consideration. For other subjects, our sales and delivery term and conditions are valid. Latest version of Technical Data Sheet is valid.

Proper and as a result successful use of our products is beyond our control. For this reason we can only guarantee the quality of our products within the framework of our Terms and Conditions of Sale and Delivery, not, however, for their successful processing. All data and information in these instructions are based on the latest state-of-the-art technology, we expressly reserve the right to make modifications or adaptations to the development. The consumption data quoted by us can only be average experience values, deviations in individual cases are possible and can therefore not be excluded.
TPH 080508