

PUR-O-COAT TW plus

Characteristic and Properties

PUR-O-Coat TW plus 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 (colored) versions.

PUR-O-COAT TW plus, 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 TW plus has high mechanical resistance when completely cured and increases wear and scratch resistance of covering material.

Typical Use

PUR-O-COAT TW plus 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. Due to its good resistance against alkalinity PUR-O-COAT TW plus can even be applied onto concrete surfaces without the common Epoxy primer.

Substrates

PUR-O-COAT TW plus has excellent bonding properties to polymers such as polyurethane, acrylic, epoxy, polyurea, as well as suitably primed concrete and wood. PUR-O-COAT TW plus can even be applied directly onto concrete surfaces without the common Epoxy primer.

Specifications

	Mat Transparent Main Comp.	Semi-mat Transparent Main Comp.	Gloss Transparent Main Comp.	Hardener
Viscosity (25°C) :	250±50 sec.	150±30 sec.	200±50 sec.	570-730
Density (25°C) :	1.02±0.05g/cm ³	1.01±0.05 g/cm ³	1.02±0.02 g/cm ³	1.14±0.01

Binder type: Polyurethane
 Solid content: % ~ 57
 Mixing ratio: by weight 5:1
 Pot-life: at 20°C temperature h.~ 6
 (5 kg. package)

Drying time: maximum 48 h

Technical Datasheet

150 um. Wet film thickness, %50 air humidity	touch dry h ~ 1 opening to traffic h~ 6-8
Full cure:	at 20°C temperature day 7
Application temperature:	minimum 5°C maximum 30°C
Permissible relative air humidity :	minimum 40% maximum 85%
Colors:	transparent RAL colors upon request
Surface gloss:	semi matt
Package size (standard):	unit kg 0.98 or 5 + 1
Consumption :	generally per work g/m ² 100 – 150
Cleaning of tools:	by suitable cleaners
Risk category definition :	see valid safety documents
Wear by Taber-Abraser:	ASTM D 4060 mg. ~ 37
Pendel hardness according to König :	DIN EN ISO 1522 s ~ 100
Estimated VOC including H ₂ O:	g/l ~ 19

* These values are directive and could not be used as specifications

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 cleaner. 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%.

Mixing

PUR-O-COAT TW plus 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 color. 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 TW plus 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/m² 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/m². 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 TW plus 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 TW plus 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 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.

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