Tardigrade PWAP 700

One Component, Water Based, Semi Glossy, Self-Leveling, Aliphatic Polyurethane Topcoat

Description of Product

Tardigrade PWAP 700 is a one component water based, low viscosity, self-leveling UV resistant polyurethane based, aliphatic topcoat featuring a semi glossy surface appearance.

Fields of Application

- Interior and exterior spaces
- On concrete and cement based mineral surfaces
- Wall, column which epoxy and polyurethane coated surfaces,
- A high level of hygiene required fields such as hospitals, laboratories and clean rooms
- Kindergartens and care homes

used as a semi glossy finish paint and coating material.

Advantages

- Low viscosity
- Very high bond strength
- Because of low VOC content, it is an environmentally friendly product
- It has excellent penetration properties
- It has a hard elastic structure
- Easy application, maintenance and cleaning
- High UV resistance with its aliphatic feature
- Semi glossy appearance
- Hygienic and anti-bacterial
- Resistant to mechanical loads, abrasion and chemicals

Appearance

Ral colors

Packaging

Product : 25 kg. net : 26 kg. gross

Storage

Store in original sealed containers in a dry environment at temperatures between +10^{o}C and +30^{o}C. Do not put excessive loads on top of the products, which would damage the packaging.

Shelf Life

Shelf life of the product is 12 months from date of production if stored under appropriate storage conditions. Once opened, product should be consumed within one week while keeping in appropriate storage conditions.

Chemical Structure

Components: Modified Polyurethane Resin

Technical Specifications

All technical values were calculated based on +23°C and 50% relative humidity. Temperature and humidity changes would change technical values.

Tardigrade PWAP 700 Technical Data

Density	1,15 kg/liter (± %3)
Viscosity	500 - 1.500 mPa.s
Shore D Hardness	7 days: 70 - 80 (ASTM D2240-05)
Abrasion Strength	7 days < 15 mg (CS 10/1000/1000) (ASTM D4060 - 14)
Duration of Usage	150 - 200 minutes
Total Curing Time	7 days

Preparation of Substrate

Concrete substrates must be sound and of sufficient compressive strength (minimum 25 N/mm²) with a minimum pull off strength of 2,0 N/mm². The residual moisture content of the substrate must not exceed 6%, the substrate temperature should remain a minimum of +8°C and the temperature of the substrate must be at least +3°C above the current dew point temperature.

The substrate must be clean, dry and free of all contaminants such as dirt, oil, grease, coatings and surface treatments, etc. Capillary spaces where in the concrete surface should be filled. Oil-contaminated substrates must first be pre-cleaned with an emulsifying cleaning detergent in accordance with the supplier's instructions. Finally, the concrete or cement screed surface is cleaned using high-pressure water jetting. Excess water is removed from the surface by wet and dry vacuum cleaner.

Concrete substrates must be prepared mechanically using abrasive blast cleaning or scarifying equipment to remove cement laitance and achieve a profiled open textured surface. The surface should be vacuumed by industrial vacuum cleaners to remove dust.

If in doubt of the surface, apply a test area first. Should not be applied to wet or frozen surfaces and surfaces with high humidity.

Application Conditions

During the application, ambient temperature should be between +10°C and +30°C. Relative Air Humidity should not exceed 80% and the substrate temperature should be between +8°C and +30°C. Substrate moisture should be maximum 6%. Substrate temperature must be at least +3 °C above the current dew point temperature.

Preparation of Product

Make sure that the product temperature is between +10°C and +30°C before starting the stirring procedure. Stir with a mechanical drill and paddle at a very low speed till you reach a homogeneous consistency.

To prevent possible stirring errors, the product should be placed in a clean and suitable container and it is stirred with at a low speed for a short period of time.

Pour the content into a clean container and stir for another couple minutes. Please avoid stirring on high speed and do not add any solvent, thinner etc. into the mixture during the application procedure.

Application Procedure

With the condition of appropriate surface and weather conditions;

Avoid application under excessive heat or wind, rain and/or when the ambient and/or substrate temperature is below +10°C or above +30°C. In extremely cold conditions, heaters should be used to increase the ambient and the workability of the product. Should not be applied where there is insufficient waterproofing.

After the stirring procedure**,** Tardigrade PWAP 700 can be applied to a surface with airless gun, roller or brush. Make sure that a continuous; pore free coat covers the substrate. Apply second coat if necessary.

For exact color matching, ensure the Tardigrade PWAP 700 in each area is applied from the same control batch numbers. Product should be applied in max. 180 minutes in about +23°C. Waiting time between the coats is min. 10, max. 48 hours at +23°C. The surface should be sanded if waited more than 48 hours between coats. The product would be completely cured in minimum 7 days to reach its maximum mechanical and chemical resistance.

If heating is required do not use gas, oil, paraffin or other fossil fuel heaters. For heating use only electric powered warm air blower systems.

Reaction times of polyurethane based resin systems depend on ambient conditions, consequently, affects working time. So, these details need to be taken care of during the application. Under lower temperatures reaction times are longer which increases pot life, coating interval and working time.

After application, the material should be protected from direct contact with water for a minimum of 48 hours. Within this period, contact with water can cause a surface carbonation and/or surface tackiness, both of which must be removed. In such cases, overall coating should be removed from the floor and renewed.

To maintain the appearance of the floor after application, PWAP 700 must have all spillages removed immediately and must be regularly cleaned using rotary brush, mechanical scrubbers, scrubber dryer, high pressure washer, wash and vacuum techniques etc. using suitable detergents and waxes.

Cleaning of Tools

Clean all tools and application equipment with resolvent immediately after use. Hardened/cured material can only be mechanically removed.

Coverage

Tardigrade PWAP 700 is used as the main coating material in coating systems and its consumption varies according to usage of it in the system. Please refer to the system recommendations for proper consumption quantities.
**Coverage increases as the viscosity gets higher.*

Health and Safety Information

The following protective measures should be taken as per Occupational Health and Safety (OHS) regulations when working with the material. Safety gloves, goggles and protective clothing should be worn. Due to irritation effects of the uncured material, components should not come in contact with the skin, mouth or eyes.

In cases of contact the affected area should be washed with plenty of water. If swallowed, seek medical attention immediately with a specialized doctor. Do not drink or eat at the application site. Keep out of reach of children. For detailed information please refer to the safety information form (safety data sheet).

Product Liability

As being just responsible for the quality of the Tardigrade labelled products, all the data referred herein are gathered as a result of practical and scientific studies. TARDIGRADE cannot be legally obligated or responsible for any damage unless correct product is used accurately in suitable areas and under right conditions.

Legal Notes

All the information and references herein regarding Tardigrade labelled products are provided in good faith, if kept and interfered in accordance with normal conditions, recommendations, and with knowledge and experience. Along with products, areas of use and surfaces can cause many differences. It is necessary to make sure that the right products with Tardigrade trademark are applied on suitable surfaces under normal conditions. Moreover, all the above given information and instructions regarding technical compatibility with commercial factors must be strictly followed. The manufacturer cannot be held responsible for any damage or problems that may arise if not followed. The applicator / user is obliged to carry out the relevant checks to ensure about these details. The specifications of the Tardigrade branded products may be changed if necessary. The property rights of third parties must be observed. All the technical requirements for sale and shipping are valid when the order is approved.