

T-POL 1050

Polyurea Based, Two Component, Waterproofing and Coating Material (cold polyurea)

Description of Product

T-POL 1050, is a low viscosity, two components, liquid, multi-purpose polyurea based coating and waterproofing material.

Usage places

- On concrete and cement-based mineral surfaces,
- Heat resistance performance in wide temperature ranges is between -40°C +90°C.
- It can be easily applied in closed areas.
- In wet processing areas in laboratories, food, chemical and pharmaceutical industries,
- Factories, storage and assembly areas,
- Marina areas and boats

Advantages

- It has excellent mechanical properties.
- It exhibits effective resistance against chemicals.
- It does not contain toxic substances after curing.
- It is effective in water vapor permeability: Since the film breathes, moisture accumulation does not occur under the floor.
- Its thermal resistance is excellent, the product never softens. Maximum service temperature is 90°C, maximum shock temperature is 200°C.
- It is easy to apply.
- Covers static cracks.
- It is liquid impermeable.
- It is hygienic and easy to clean.
- Resistant to mechanical loads, abrasion and chemicals.
- Resistant to cold: The film maintains its elasticity down to -40°C.
- Even if the T-POL1050 is damaged in any way, the damaged part can be easily repaired in a short time
- Although it does not require thinning, polyurethane thinner can be used depending on the conditions.

Appearance

Mix (Part A +Part B): grey

Packaging

Part A: 25,5 kg. net – Part B:1,5 kg. net

Total: Part A+B: 27 kg. net – Part A+B: 28,50 kg. gross

Storage

Store in original sealed containers in a cool dry environment at temperatures between +5°C and +30°C. Do not put excessive loads on top of the products, which would damage the packaging.

Shelf Life

Minimum 6 months for part A and 6 months for part B from date of production if stored in original unopened containers.

Chemical Structure

Part A: Polyurea Resin Part B: Hardener

Technical Specifications

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

Technical Specifications

Density 1.37-1.42 gr/cm³

Hardness Degree 65 (Shore A)

Viscosity 3000-4500

Water Vapor Permeability 0.8 gr/m²h

Adhesion to Concrete >2.5 (N/mm²)

Tensile Strength >8 (N/mm²)-(+23°C)

Elongation Percent ≥ 500%

Mix Pot Life 30-40 minutes

Drying Time 12-24 hours

Recoat 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 2,5 N/mm². The residual moisture content of the substrate must not exceed 4%, 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. 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.

Before the application on an asphalt surface, the surface must be prepared mechanically using abrasive blast cleaning or scarifying equipment to expose at least 50% of the aggregate.

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

Before applying T-POL 1050, the substrates should be primed with appropriate Momentum primer (according to the ground) materials.

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 humidity should be maximum 4%. Substrate temperature shouldn't be less than +8°C must be at least +3°C above the current dew point temperature.

Before applying T-POL 1050, the substrates should be primed with appropriate Momentum primer (according to the ground) materials.

Mixing

Make sure that the product temperatures are between +10°C and +30°C before starting the mixing procedure. Prior to mixing, stir part A and B separately with a mechanical drill and paddle at a very low speed. Add component B gradually into component A and mix till you reach a homogeneous consistency (Approximately 3 minutes).

If necessary, after mixing part A and B, aggregate is added to the mixture as needed and stirred again until a homogeneous mixture is obtained.

Pour the contents into a clean container and mix for another couple minutes.

Application Procedure

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.

Mixed T-POL 1050 is applied to the surface with roller half. It should be ensured that a non-porous layer is formed completely covering the surface.

For exact color matching, ensure the T-POL 1050 in each area is applied from the same control batch numbers. If heating is required do not use gas, oil, paraffin or other fossil fuel heaters, these produce large quantities of both CO₂ and H₂O water vapor, which may adversely affect the finish. For heating use only electric powered warm air blower system.

Mixed product should be applied in max. 30 minutes in about +20°C. Waiting time between coats should be minimum 8-12 hours in +20°C and if more 48 hours surface need preapere again. If waited more than 48 hours, the surface should be sanded. The product would be completely cured in minimum 7 days to reach its maximum mechanical and chemical resistance.

Reaction times of resin based systems depend on ambient and substrate temperatures as well as relative humidity. Under lower temperatures reaction times are longer which increases pot life, coating interval and working time. High temperatures increase chemical reactions and the above mentioned time decreases accordingly.

After application, the material should be protected from direct contact with water for a minimum of 24 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, T-POL 1050 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.

Epoxy and polyurethane flooring systems, should be performed by expert contractors.

Cleaning of Tools

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

Before Application Surface should be primed with Epoxy primer

- T-POX 2000 or TPOX2200 for absorbent surfaces
- T-POX 2400 and TPOX2500 for hard and smoot floors

T-POL 1050, whose mixture is completed, is applied to the surface with the help of a roller or brush. It should be ensured that a non-porous layer completely covers the surface.

Consumption

T-POL 1050 A+B mixture is used as the main coating material in coating systems and its consumption varies according to its use in the system. Please review the system recommendations for appropriate consumption amounts.

*Consumption may increase as viscosity increases in low temperature conditions.

Average consumption:

1 coat for 0.750-0.900kg/m²,

2 coats for 0.750-0.900kg/m²,

Minimum total consumption: 1.5-1.8 kg/m²

*Consumption may vary depending on the ground and temperature value.

Health and Safety Information

The following protective measures should be taken when working with the material: Wear safety gloves, goggles and protective clothing. Because of irritation, effects of the uncured material, components should not come in contact with the skin or eyes. In cases of contact, the affected area should be washed with plenty of water and soap. If swallowed, seek medical attention immediately. Do not drink or eat at the application site. Keep out of reach of children.

Product Liability

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

Legal Notes

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