

## TWO COMPONENT, SOLVENT FREE, MOISTURE TOLERANT, EPOXY RESIN BASED PRIMER-CERAMIC PRIMER













## **Description of Product**

T-POX 2200, is a low viscosity, moisture tolerant, solvent free, two component epoxy resin based primer with high adhesion capability to moist concrete and mineral substrates.

## **Fields of Application**

- Internal and external substrates
- On concrete and cement based mineral surfaces
- Especially, on surfaces that have absorbed moisture and oil
- Primer for all Tardigrade Epoxy and polyurethane surfaces
- Binder for epoxy based levelling mortars and mortar screeds
- With aggregate, it can be used as cast and repair mortar on the surfaces that require repair.

### **Advantages**

Low viscosity















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- High bond strength on moist surfaces
- Solvent free
- Excellent penetration and adhesion ability
- Easy application
- Both for internal and external use
- High chemical resistance

#### **Appearance**

Part A (Epoxy Resin): Liquid – Transparent Part B (Epoxy Hardener): Liquid – Pale Yello

**Packaging** 

Part A: 13 kg. net - Part B: 7 kg. net

Total: Part A+B: 20 kg. net – Part A+B: 22,55 kg. brüt

#### **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 12 months from date of production if stored in original unopened containers. Once opened, product should be consumed within one week as it is stored under appropriate storage conditions.

#### **Chemical Structure**

Part A: Epoxy Resin Part B: Epoxy Hardener

## **Technical Specifications**

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

### **T-POX2200 Technical Data**

Density	Mixed Resin: 1,00-1,10 kg/liter	
Shore D Hardness	7 days: 75-85 (ASTM D2240-05)	
Compressive Strength	28 days: > 100 N/mm² (ASTM695-10)	
Flexural Strength	7 days: > 40 N/mm <sup>2</sup> (ASTM D695-10)	
Bond Strength	7 days : > 3 N/mm² (Concrete) (ASTM D7234)	
Abrasion Strength	7 days : < 20 mg (± %3) (CS 10/1000/1000) (ASTM D4060-14)	
Duration of Use After Mixing	40-60 minutes	
Consumption	100-150gr/m2	
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 2,5 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. 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













<sup>\*</sup>Barrels are available if requested.



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cement laitance and achieve a profiled open textured surface. 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  $+10^{\circ}$ C and  $+30^{\circ}$ C. Relative Air Humidity should not exceed 80% and the substrate temperature should be between  $+10^{\circ}$ C and  $+30^{\circ}$ C. Substrate humidity should be maximum 8%.

Substrate temperature shouldn't be less than +8°C and must be at least +3°C above the current dew point temperature.

#### Mixing

Make sure that the product temperatures are between  $+10^{\circ}$ C and  $+30^{\circ}$ 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 it is going to be used as a repair mortar, please add aggregate after mixing A and B components. Pour the contents into a clean container and mix for another couple minutes. Please avoid mixing on high speed and do not add any solvent, etc. into the mixture during the application procedure.

### **Application Procedure**

Avoid application under excessive heat or wind, rain and/or when the ambient and/or substrate temperature is below  $+10^{\circ}$ C or above  $+30^{\circ}$ C. In extremely cold conditions, heaters should be used to increase the ambient and the workability of the product.

After the mixing procedure, T-POX 2200 can be applied to the surface by using brush, roller, trowel or squeegee. Make sure that a continuous, pore free coat covers the substrate. Apply two coats if necessary. Aggregate (200-500 micron thick) is transferred to the still wet primer in order to improve adhesion of the following epoxy or PU coat. Mixed product should be applied in max. 40-60 minutes in about +20°C. Waiting time between coats should be minimum 10 hours in +20°C and maximum of 48 hours. If waited more than 48 hours, the surface should be sanded. The product would be completely cured in a minimum of 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.

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.

#### Coverage

Purpose of Use	Product	Consumption
Primer	T-POX 2200	0.100-0.150 kg/m²
Base Coat-Thin	1 unit T-POX 2200+0.50 unit	
(Surface roughness up to 1 mm)	aggregate (100-300 micron thick)	1.40 kg/m²/mm
Base Coat–Medium Thickness	1 unit T-POX 2200+1 unit aggregate	
(Surface roughness 1-2 mm)	(100-300 micron thick)	1.60 kg/m²/mm
Bonding Bridge	T-POX 2200	0.100-0.150 kg/m²
Mortar Coating / Repair Mortar	1 unit T-POX 2200+10 unit aggregate	2.00kg/m²/mm















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\* Coverage increases as the viscosity gets higher at lower temperature.

### **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**

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