

## DESCRIPTION

TECHNO COATING™ FR is a two-component, fire-retardant epoxy coating designed for the realization of floors or protection of industrial equipment or surfaces. This product is 100% solid, VOC-free, and odorless. This system has been formulated for industrial and commercial utilization where a fire-retardant norm is required.

This system demonstrates a very hard finish but also offers flexibility where the substrate can move slightly due to slow temperature changes or thermal shocks. TECHNO COATING™ FR is easily applied using conventional techniques.

## ADVANTAGES

- **Meets the UL94-V0 norm**
- 15L pre-measured unit
- Self-leveling
- Meets the LEED norm
- Fast recoating time
- Can also be gravity cast to a thickness of ~ 0,125 in
- Self-extinguishing
- Excellent impact resistance
- Sticks to concrete, wood, composte, metal (with prior preparation)
- Excellent opacity
- Available in a myriad of colors

## APPLICATION INSTRUCTIONS

Surfaces must be intact, clean, dry, and free from all contaminants. We recommend removing sand, dust, dirt, grease, wax, silicone, oxidation, and glue that could affect the adhesion of TECHNO COATING™ FR.

**CONCRETE:** Mechanical or chemical preparation (muriatic acid). It is very important to remove existing coatings before applying TECHNO COATING™ FR. The minimum age of concrete surfaces before an application is 28 days @ 22° C (72° F) depending on curing and drying conditions. We recommend applying the first coat (~ 0.005-inch thickness) as a sealer and 0.015-inch thickness for the topcoat.

**IMPORTANT:** The moisture content of all concrete substrates should not exceed ~ 4%. This moisture content can be measured with a calibrated moisture meter. We recommend applying TECHNO COATING™ FR early in the morning or late in the afternoon so that the concrete floor does not get too hot. Do not apply to porous surfaces where there would be water vapor transmission during application.

**METALS:** Manual sandblasting or sandblasting plus acetone degreasing. Apply the coating quickly as the oxidation of the metal will come back in less than 24 hours and create a barrier between the coating and the metal thus reducing the bond strength.

**GALVANIZED STEEL:** Chemical phosphating.

**COMPOSITES:** Make sure the surface is clean and free of release agents. Depending on the surface, manual sanding or sandblasting will increase the adhesion of TECHNO COATING™ FR.

**OTHER SUBSTRATES:** Manual sanding to create a surface profile or by sandblasting depending on the substrate.

COVER / THEORETICAL GALLON				
THICKNESSES	0.005 inch	0.010 inch	0.015 inch	0.020 inch
FT <sup>2</sup> /3.78L	320 ft <sup>2</sup>	160 ft <sup>2</sup>	106 ft <sup>2</sup>	80 ft <sup>2</sup>

**LIMITATIONS:** It is preferable that the installation of TECHNO COATING™ FR is carried out by qualified and experienced applicators. We strongly recommend that you validate your application by performing a test on a 12 x 12-inch surface before starting production.

**CLEAN-UP PROCEDURES:** Collect and contain spillages with absorbent material. Dispose of in accordance with current regulations. Once hardened, the product can only be removed mechanically. Clean tools and brushes with our eco-friendly cleaner POLY CLEANER™.

**AMBIENT TEMPERATURE OF THE SUBSTRATE:** To apply TECHNO COATING™ FR, we recommend an ambient temperature of 22° C (72° F), relative humidity below 70%, and both parts of TECHNO COATING FR™ (A / B) at a temperature of 22° C (72° F). At lower temperatures, the curing time will be prolonged.

**MIXING OF PARTS A / B:** Pour the contents of the Part B (small) container into the Part A (large) container. Do not hand mix TECHNO COATING™ FR A / B resin; mechanically mix with a drill and a jiffy mixer. Mix thoroughly for at least 10 minutes, making sure to regularly scrape the sides and bottom of the container. Use a 2-inch metal spatula to scrape the sides and move the resin to the center of the container. When you are finished, do not leave the resin in the container, pour it on the floor and use a roller or a straight or serrated squeegee to spread the TECHNO COATING™ FR.

**PRECAUTIONS:** Please consult POLYMÈRES TECHNOLOGIES for more details about your application. ([sales@polymerestechnologies.com](mailto:sales@polymerestechnologies.com)).

**HEALTH AND SAFETY INFORMATION:** For information and advice on the safe handling, storage, and disposal of chemicals, users should refer to the most recent Safety Data Sheet which contains physical, ecological, toxicological, and other data. safety data.

**KEEP OUT OF REACH OF CHILDREN. FOR INDUSTRIAL AND COMMERCIAL USE.**

TYPICAL PROPERTIES (at 22°C / 72°F)	
<b>SOLID CONTENT by volume or weight</b>	100%
<b>VISCOSITY (cps)</b>	Part A: 1200 Part B: 340 Mixture: 700
<b>COLOR</b>	Colored
<b>MIXING RATIO</b>	By volume: 2A/1B By weight: 100A/39B
<b>POT LIFE (200 g)</b>	30 minutes
<b>SUGGESTED PRIMER</b>	Self-priming
<b>VOC</b>	0%
<b>APPLICATION METHOD</b>	Roller, brush, or straight/notched squeegee
<b>NUMBER OF COATS</b>	1 (sealer); 1 - 2 (topcoats)
<b>RECOMMENDED THICKNESS</b>	5 mils (sealer); 15 mils (topcoat)
<b>RECOATING TIME</b>	8 hours, maximum of 24 hours
<b>CURING TIME</b>	Touch dry: ~ 4 - 6 hours Light traffic: ~ 24 hours Full cure: 7 days
<b>CLEANING SOLUTION</b>	POLY CLEANER™

<b>PHYSICAL PROPERTIES (7 days after cure at 22°C / 72°F)</b>		
<b>TEST</b>	<b>METHOD</b>	<b>RESULT</b>
HARDNESS	ASTM D-634	80 shore D
COMPRESSIVE STRENGTH	ASTM D-695	131 MPa (148 922 psi)
TENSILE STRENGTH	ASTM D-790	42.7 MPa (61 625.5 psi)
ELONGATION PERCENTAGE	ASTM D-638	5.9%
FLAMMABILITY CLASSIFICATION	UL94-V0 norm	Meets the norm
ADHESION STRENGTH	ASTM D-4541 (Concrete)	> 3.5 MPa with damage on concrete
ABRASION STRENGTH	ASTM D-4060 Taber Abraser (wheels CS-17)	82 mg loss

## **PRECAUTIONS**

- Consult the safety data sheet before use.
- Normal health and safety precautions should be observed when handling these products.
- Provide good ventilation.
- Wear gloves, safety glasses, and protective clothing.
- Once the container has been opened, POLYMÈRES TECHNOLOGIES has no control over or responsibility for the shelf life.
- The shelf life of the product in the original closed containers is one (1) year.

It is recommended to follow provincial and federal safety regulations. In case of contact with eyes, rinse well with water, in case of contact with skin, rinse with soap and water.

## **ASSUMPTION OF RISK**

Customer assumes all risk and liability for the results obtained by the use of any POLYMÈRES TECHNOLOGIES products, including, without limiting the generality of the foregoing, the use of the CHILL EPOXY™ line of products, and the use of any process, whether in terms of general effectiveness, success or failure, and regardless of any oral or written statements made by way of technical advice or otherwise, related to the use of any POLYMÈRES TECHNOLOGIES product.