

INERTA 700 / INERTA 700 TIX

Polyurethane Coating

PAINT TYPE	INERTA 700 / INERTA 700 TIX is a two-pack solvent-free polyurethane coating.
USAGE	Used on industrial floors where elasticity and good resistance to mechanical abrasion is required. Used for coating wagons that are used for transporting fertilizers, coal and ore. The product can be used also for coating concrete safety basins. INERTA 700 TIX is a more thixotropic version more suitable for painting vertical surfaces.
SPECIAL PROPERTIES	The coating endures impacts, hard abrasion, chemicals and constant submerging in water. It will also cure in -5°C temperature. The crack bridging ability of a 2 mm INERTA 700 layer on concrete is 1.9 mm (standard EN 1062-7, method A). The coating is applied to 500 - 2000 µm thickness.
APPROVALS	INERTA 700 has CE approval for protection of concrete structures. Additional information: see page 3: "CE MARKING".

TECHNICAL DATA

Mixing ratio	Base (Comp. A): Hardener (Comp B): INERTA 700 HARDENER	3 parts by volume 1 part by volume
Pot life, +23 °C	20 min	
Solids	abt. 100 % by volume	
Total mass of solids	abt. 1300 g/l	

Volatile organic compound (VOC)	abt. 0 g/l		
Recommended film thickness and theoretical spreading rate	Dry film (µm)	Wet film (µm)	Theoretical spreading rate (m ² /l)
	Horizontal surfaces:		
	500	500	2,0
	2000	2000	0,5
	Vertical surfaces (TIX version only):		
	500	500	2,0
	1000	1000	1,0

Practical spreading rate The values depend on the application technique, surface conditions, overspray, etc.

Drying time at +23°C / 50% RH
- dust free (ISO 9117-3:2010) after about 2 h
- touch dry (ISO 9117-5:2012) after about 4 h
- fully cured after about 7 d

Overcoatable

surface temperature	by itself	
	min.	max.
+5°C	12 h	5 days
+10°C	8 h	4 days
+23°C	4 h	2 days

Increase in film thickness and rise in the relative humidity of the air in the drying space usually slow down the drying process.

Thinner	TEKNOSOLV 9521
Clean up	TEKNOCLEAN 6496
Finish	Gloss
Colours	Red and white. Other colours by agreement.
SAFETY MARKINGS	See Safety Data Sheet.

DIRECTION FOR USE**Surface preparation**

Remove from the surfaces any contaminants that might be detrimental to surface preparation and painting. Remove also water-soluble salts by using appropriate methods. The surfaces are prepared according to the different materials as follows:

STEEL SURFACES: Remove mill scale and rust by blast-cleaning to preparation grade Sa 2½ (ISO 8501-1). The profile of the blast-cleaned surface must be at least coarse (reference comparator "G"). See standard ISO 8503-2 (G).

OLD PAINTED SURFACES SUITABLE FOR OVERCOATING: Any impurities that might be detrimental to the application of paint (e.g. grease and salts) are removed. The surfaces must be dry and clean. Old, painted surfaces that have exceeded the maximum overcoating time are to be roughened as well. Damaged parts are prepared in accordance with the requirements of the substrate and the maintenance coating.

CONCRETE SURFACES: The concrete must be at least 4 weeks old and well-hardened so that all moisture from casting is bound and the surface dry. The moisture of the concrete must not exceed 97 % as relative humidity or 4% by weight (by 45 / BLY 7).

Dense laitance is to be removed from the concrete by shot-blasting, sanding or by sand blasting. Brittle and powdery top layers are treated so that the solid concrete containing aggregate is exposed. Thereafter all cement dust is removed by vacuum cleaner or brush. The concrete surface must be clean of anything that might hinder the adhesion.

The place and time of the preparation are to be chosen so that the prepared surface will not get dirty or damp before the subsequent treatment.

Application conditions

The surface to be painted must be dry. During the application the temperature of the ambient air and the surface shall be above +5°C and the relative air humidity below 80%. Additionally the temperature of the surface to be painted must be at least 3°C above the dew point of the ambient air. When the painted surface is touch dry, the drying temperature may be as low as -5 °C.

Application

Vertical surfaces:

On vertical surfaces it is recommended to use more thixotropic INERTA 700 TIX version.

The application is done either by hot twin-feed spray with great pressure ratio, e.g. Graco Hydra-Cat, equipped with heating, (turn nozzle 0.018 - 0.026") or with a brush or roller.

Take the pot life of the paint into consideration while painting.

WARNING! The amount and the temperature of the mixture will affect the pot life. The spray equipment will be damaged if the paint is let to cure inside it.

For two component application the components must be kept at a temperature of +20 - +25° C before use so that they are fluid enough for the feed pumps.

The ratio of the dosage pump must be 3:1. The heating of the Comp. A (base) shall be adjusted so that the temperature in the gun is +40 - +50°C. Comp. B (hardener) is not to be heated. The temperature of the mixture in the hose should be +30 - +40°C. The pot life of the mixture is then 5 min. If required, also the hoses must be heated.

The film thickness is controlled by a wet film gauge. Check the feed pump pressure and the consumption of the components. If work is stopped during application the mixing tube, hoses and gun are to be rinsed immediately with TEKNOSOLV 9521.

Directions given by the manufacturer of the twin-feed spray are to be followed when working.

Concrete floors:

The priming is done with TEKNOFLOOR PRIMER 310F Epoxy Varnish. For mohair roller application the varnish is diluted about 30% with TEKNOSOLV 9515 or TEKNOSOLV 9506. Spread the varnish 0.2 - 0.3 l/m². If the concrete floor is very porous, the second coat can be applied with TEKNOFLOOR PRIMER 310F Epoxy Varnish according to the instructions for overcoating time given in the Data Sheet.

Spread the composition with an adjustable trowel, the slit of which can be adjusted to give the coat thickness required. Smooth the coat with a mohair roller and use a plastic porcupine roller to delete air bubbles.

MIXING OF COMPONENTS: First the base must be mixed until homogenous. Pour the hardener to the base container and mix thoroughly for at least 2 min. Then pour the mixture to a new container making sure that the original container is carefully scraped clean. Mix the mixture at least for an additional minute. It is recommended to use a slow-rotating drilling machine equipped with a stirrer for mixing. Careless stirring or incorrect mixing ratio will cause an irregular curing and impaired film properties.


ADDITIONAL INFORMATION

The storage stability is shown on the label. Store in a cool place and in tightly closed containers.

Additional instructive information for surface preparation can be found in standards EN ISO 12944-4 and ISO 8501-2.

Continues...

CE MARKING

	
0809	
Teknos Oy Takkatie 3, P.O. Box 107 FI-00371 Helsinki, Finland 13 Declaration of Performance No. 0002	
0809-CPR-1063 EN 1504-2:2004 Surface protection products – Coating Physical resistance (5.1) Chemical resistance (6.1)	
Abrasion resistance	Requirement: Weight loss less than 3000 mg
Capillary absorption and permeability to water	Requirement: $w < 0,1 \text{ kg/m}^2 \times \sqrt{h}$
Resistance to severe chemical attack	Requirement: Reduction in hardness of less than 50 %
Impact resistance	Class II: > 10 Nm
Adhesion strength by pull-off test	Requirement: Crack-bridging system with trafficking: $\geq 1,5 (1,0) \text{ N/mm}^2$
Reaction to fire	$C_n - s1$
Dangerous substances	See safety data sheet

The information of this data sheet is normative and based on laboratory tests and practical experience. Teknos guarantees that the product quality conforms to our quality system. Teknos accepts, however, no liability for the actual application work, as this is to a great extent dependent on the conditions during handling and application. Teknos accepts no liability for any damage resulting from misapplication of the product. This product is intended for professional use only. This implies that the user possesses sufficient knowledge for using the product correctly with regard to technical and working safety aspects. The latest versions of Teknos data sheets, material safety data sheets and system sheets are on our home pages www.teknos.com.