

**INERTA 165**
Epoxy Coating

PAINT TYPE	INERTA 165 is a two-pack epoxy coating with low solvent content and based on liquid epoxy resin.
USAGE	Used on steel in Epoxy Coating System K34. Also suitable on concrete. Also used on objects immersed in water, e.g. sluice gates and pipelines of hydropower plants.
SPECIAL PROPERTIES	INERTA 165 has good adhesion to blast-cleaned steel and excellent abrasion resistance due to smooth and hard surface of the cured film. It is therefore suitable for use on structures that are to be subjected to heavy abrasion. INERTA 165 can be applied by airless spray, either one-component or hot twin-feed spray. Also INERTA 165-02 HARDENER can be used in the product. Compared to the standard hardener INERTA 165 HARDENER it enables to shorten the curing time and to extend the pot life. In addition the spraying properties of the paint get better, it is possible to paint thicker films without sagging and the drying temperature can be +5°C. Also available a version of the standard hardener: INERTA 165-11 HARDENER with a different solvent composition

TECHNICAL DATA

Mixing ratio	Base (Comp. A): Hardener (Comp. B):	2 parts by volume 1 part by volume	
Pot life, +23 °C	30 min using INERTA 165 HARDENER 60 min using INERTA 165-02 HARDENER		
Solids	INERTA 165 HARDENER: 92 ±2% by volume INERTA 165-02 HARDENER: 94 ±2% by volume		
Total mass of solids	using INERTA 165 HARDENER abt. 1300 g/l using INERTA 165-02 HARDENER abt. 1360 g/l		
Recommended film thickness and theoretical spreading rate	Dry film (µm)	Wet film (µm)	Theoretical spreading rate (m ² /l)
	200	215	4,6
	250	270	3,7
	300	320	3,1
	400*	425*	2,4*

* only when using INERTA 165-02 HARDENER.

As many of the paint's properties will change if too thick coats are applied, it is not recommended that the product is applied to a film thickness that is more than double of the thickest recommended film.

Practical spreading rate The values depend on the application technique, surface conditions, overspray, etc.**Volatile organic compound (VOC)** abt. 100 g/l using INERTA 165 HARDENER
abt. 70 g/l using INERTA 165-02 HARDENER**Drying time at +23°C / 50% RH (dry film 250 µm)**

- dust free (ISO 9117-3:2010) using INERTA 165 HARDENER 6 h, using INERTA 165-02 HARDENER 4 h
 - touch dry (ISO 9117-5:2012) using INERTA 165 HARDENER 12 h, using INERTA 165-02 HARDENER 7 h
 - fully cured 7 d

Overcoatable, 50% RH (dry film 250 µm)

	by itself, using INERTA 165 HARDENER		by itself, using INERTA 165-02 HARDENER	
	min.	max. *	min.	max. *
surface temperature				
+5°C	-	-	after 24 h	after 3 d
+10°C	after 10 h	after 2 d	after 9 h	after 2 d
+23°C	after 6 h	after 24 h	after 5 h	after 24 h

* Maximum overcoating interval without roughening.

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

Thinner, clean up TEKNOSOLV 9506**Finish** Gloss**Colours** White and black
Other colours with some restrictions.**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).

CONCRETE SURFACES: The concrete must be at least 4 weeks old, well-hardened and solid. The water content of the top layer must not exceed 4% by weight.

Smooth down any spatter and irregularities on the surfaces by grinding. Brush away loose cement, sand and dust. Wash oily and greasy surfaces with detergent or solvent. Remove dense laitance if present by etching with RENSA ETCHING etching liquid or by grinding or blast-cleaning.

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.

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.

Stopping, smoothing

Severely pitted steel can be stopped up with INERTA 160 FILL, which is applied by twin-feed airless spray and smoothed immediately with a steel trowel (width 20 - 30 cm). Alternatively, TEKNOPOX FILL can be used. It is applied by steel trowel.

Big cavities in the concrete are repaired with cement mortar immediately after the removal of moulds. All holes are to be filled, and if necessary, the whole surface is stopped up with TEKNOPOX FILL.

Prefabrication primer

All prefabrication primer coats must be completely removed regardless of the binder type. In practice this means that when the surface is viewed vertically from a distance of 1 meter and in normal lighting conditions the surface is of an evenly grey colour, i.e. the preparation grade is Sa 2½ (ISO 8501-1).

Mixing of the components

Take into consideration the pot life of the mixture when estimating the amount to be mixed at a time. Before painting the base and hardener are mixed in right proportion. Stir thoroughly down to the bottom of the vessel. Mixing by machine is recommended, for example a slow-rotating hand-drill equipped with a mixer. Inadequate stirring or incorrect mixing ratio results in imperfect curing and impaired film properties.

Application conditions

The surface to be painted must be dry. During the application and drying period the temperature of the ambient air, the surface and the paint shall be above +10°C and the relative air humidity below 80%. Additionally the temperature of the surface to be painted and the paint must be at least 3°C above the dew point of the ambient air.

Using INERTA 165-02 HARDENER: The surface to be painted must be dry and the relative air humidity below 80%. During the application and drying period the temperature of the ambient air and the surface shall be at least above +5°C, and the temperature of the paint above +15°C during mixing and spraying. The temperature of the surface and the paint must be at least 3°C above the dew point of the ambient air.

Application

Apply with airless spray with great pressure ratio. Use either one-component airless spray or hot twin-feed spray with turn-nozzle 0.019 - 0.026". Brush or roller can be used for touching up.

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.

To fill the pores in concrete surfaces, a coat of 200 - 300 µm is first sprayed and smoothed by brush or rubber spatula over porous areas. Immediately thereafter another coat is applied to achieve the total coat thickness of 500 µm.

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.

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.



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