

TEKNODUR 100 9-00

Polyurethane Top Coat

DESCRIPTION	TEKNODUR 100 9-00 is a two-component, full-gloss polyurethane top coat. The hardener is an aliphatic isocyanate resin.
MAIN USAGE AREAS	A highly durable topcoat for protective coating systems used on general structural steel constructions in demanding applications, such as transportation industry (trucks, trains, trams etc.), agricultural and construction equipment and steel constructions.
FEATURES	TEKNODUR 100 9-00 provides weather resistant top coat with excellent colour and gloss retention as well as excellent levelling and surface finish. The film is impact and scratch resistant and has unlimited overcoatability with itself.

TECHNICAL DATA

Mixing ratio	Base (Comp. A): Hardener (Comp B): TEKNODUR HARDENER 7230	7 parts by volume 1 part by volume
Pot life, +23 °C	3 h	
Solids	49 ±2% by volume (ISO 3233:1988)	
Total mass of solids	abt. 720 g/l	
Volatile organic compound (VOC)	abt. 450 g/l	
Recommended film thickness and theoretical spreading rate	Dry film (µm)	Wet film (µm)
	40	81
		Theoretical spreading rate (m ² /l)
		12,2

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.

Drying time at +23°C / 50% RH (dry film 40 µm)

- dust free (ISO 9117-3:2010) after 1 h
- touch dry (ISO 9117-5:2012) after 8 h

Overcoatable, 50% RH (dry film 40 µm)

surface temperature	by itself	
	min.	max.
+5°C	after 20 h	-
+23°C	after 6 h	-

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

Recommended primers are: TEKNOPOX PRIMER 9-00 and TEKNODUR PRIMER 8-00.

Thinner	Standard thinners: TEKNOSOLV 9521 and TEKNOSOLV 9526 (non-aromatic). Other thinners suitable for the product: see page 2.
Clean up	TEKNOCLEAN 6496 or TEKNOSOLV 9534
Finish	Full gloss
Colours	The paint is included in the Teknotint tinting system.
SAFETY MARKINGS	See Safety Data Sheet.

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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:

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.

Mixing of the components

Take into consideration the pot life of the mixture when estimating the amount to be mixed at a time. Stir the base part thoroughly before mixing of the components. Before painting the base and hardener are mixed in right proportion. Stir thoroughly down to the bottom of the vessel. Inadequate stirring or incorrect mixing ratio results in imperfect curing and impaired film properties.

Application conditions

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

Before use stir the paint thoroughly. Before use clean the spray gun and mixing vessels with a thinner suitable for the paint.

Apply by conventional spray, airless spray or air-assisted airless. Suitable airless nozzle size 0.008 - 0.013". Suitable conventional spray nozzle size 1.0 - 1.5 mm, pressure 2.5 - 4.0 bar.

Painting should be carried out by 1.5 or 2 layer method:

- Apply 1st layer as mist coat (1.5 layer method) or as thin as possible to form complete film (2 layer method)
- Let the first layer dry for 5–10 min flash-off period. For both methods the second layer should be applied before the solvents have fully evaporated from the first layer.
- Apply second layer to achieve the target dry film thickness.

Drying of the coating film can be carried out either at ambient temperature or the film can be dried at 60–80 °C after 15–30 min flash off period after the second film has been applied. Drying time at elevated temperature is dependent on the painted object. Normal drying time at elevated temperature is 60 min.

Standard thinners: TEKNOSOLV 9521 and TEKNOSOLV 6220.

Slow thinner: TEKNOSOLV 6291. Used e.g. when painting large surfaces and when the temperature is above room temperature.

Fast thinner: TEKNOSOLV 9526. Used when spray painting large surfaces with mist coating technique, and when using electrostatic spraying.

Dilute the paint 10 - 40%, when required. Universal diluents or thinners cannot be used, since they may contain alcohol that will react with the hardener.

The hardener of the paint and the ready paint mixture contain isocyanates. In poorly ventilated areas and especially when using spray application we recommend the use of a fresh air mask. In short or temporary work a mask with combined filter A2-P2 can be used. In this case eyes and face are to be protected.

The hardener can must be opened with caution, as pressure may develop in the can during storage.

ADDITIONAL INFORMATION

The storage stability is shown on the label. Store indoors in a cool and dry place and in a tightly closed can. The hardener reacts with air humidity and therefore the opened can is to be kept carefully closed, and it is recommended to be used within 14 d of opening.

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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