

# TEKNODUR 0090

## Polyurethane top coat

TEKNODUR 0090 is a two pack polyurethane top coat. The hardener is an aliphatic isocyanate resin.



Intended for use as a top coat in protective coating systems on steel and other metals.

The paint produces a high gloss film with good mechanical and weather resistance.

The use of TEKNODUR 0290 Polyurethane Varnish is recommended when the top coat is required to have excellent gloss and colour retention.

### TECHNICAL DATA

<b>Recommended substrate</b>	Metal, Steel						
<b>Binder</b>	Polyurethane						
<b>Solids</b>	50 ±2% by volume (ISO 3233:1988)						
<b>Total mass of solids</b>	Approx. 730 g/l						
<b>Volatile organic compound (VOC)</b>	Approx. 460 g/l (DIRECTIVE 2010/75/EU) The VOC value provided is the average value for factory produced products, and consequently it will be subject to variations between individual products covered by this Technical Data Sheet.						
<b>Theoretical spreading rate</b>	<table border="1"><thead><tr><th>Dry film (µm)</th><th>Wet film (µm)</th><th>Theoretical spreading rate (m<sup>2</sup>/l)</th></tr></thead><tbody><tr><td>40</td><td>80</td><td>12.5</td></tr></tbody></table>	Dry film (µm)	Wet film (µm)	Theoretical spreading rate (m <sup>2</sup> /l)	40	80	12.5
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40	80	12.5					
<b>Practical spreading rate</b>	The values depend on the application technique, surface conditions, overspray, etc.						
<b>Colours</b>	Same tinting system should be used during the whole painting project. Factory colours by agreement.						
<b>Tinting system</b>	Teknomix; Teknotint						
<b>Gloss (60°)</b>	Gloss						
<b>Hardener</b>	Comp. B: TEKNODUR HARDENER 0010						
<b>Mixing ratio (A:B)</b>	9:1 parts by volume						
<b>Pot life, +23°C</b>	4 h						
<b>Thinner</b>	Standard thinners: TEKNOSOLV 9521 and TEKNOSOLV 6220. Other thinners suitable for the product: see Thinning.						

## Storage

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.

## DIRECTION FOR USE

### Surface preparation

Remove from the surfaces any contaminants that might be detrimental to surface preparation and application. 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.

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

### Priming

Recommended primers are: TEKNOPLAST PRIMER -series. Also suitable primers are e.g. INERTA PRIMER 5, INERTA 51 MIOX and TEKNOMASTIC 80 PRIMER.

### Application method

Airless spraying, Conventional spraying

### Application

Take into consideration the pot life of the mixture when estimating the amount to be mixed at a time. Before application 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.

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

Suitable airless nozzle size 0.011 - 0.013".

### Application conditions

The surface to be treated must be dry. During the application and drying period the temperature of the ambient air, the surface and the product shall be above +5°C and the relative air humidity below 80%. Additionally, the temperature of the surface to be treated and the product must be at least +3°C above the dew point of the ambient air.

## Thinning

Standard thinners: TEKNOSOLV 9521 and TEKNOSOLV 6220.

Slow thinners: TEKNOSOLV 1640 and 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 10 - 20%, when required. Do not use universal thinners, since they may contain alcohol which will react with the hardener.

### Drying time

+23°C / 50% RH (dry film 40 µm)

### - dust free

1 h (ISO 9117-3:2010)

### - touch dry

6 h (ISO 9117-5:2012)

### - fully cured

7 d

### Overcoatable

surface temperature	by itself	
	min.	max.
+5°C	20 h	-
+23°C	12 h	-

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

## Cleaning

TEKNOCLEAN 6496

## HEALTH AND SAFETY

### Safety and precaution measures

See safety data sheet.

The hardener of the product and the ready 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.

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