

TEKNODUR 0290

Polyurethane top coating paint and clear coat

TEKNODUR 0290 is a two-pack polyurethane topcoat. The hardener is an aliphatic isocyanate resin.



Used as topcoat in TEKNODUR polyurethane coating systems on steel and metal. Especially suited for painting vehicles and other transportation equipment. TEKNODUR 0290 produces a high gloss, UV-resistant film with good mechanical and weather resistance. Varnishing with TEKNODUR 0290 polyurethane clear coat is recommended when the topcoat is required to have excellent gloss and colour retention.

TECHNICAL DATA

Recommended substrate	Metal												
Binder	Polyurethane												
Solids	paint: 50 ±2 % by volume clear coat: 45 ±2% by volume												
Total mass of solids	paint: approx. 650 g/l clear coat: approx. 480 g/l												
Volatile organic compound (VOC)	paint: approx. 470 g/l clear coat: approx. 520 g/l 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 TDS.												
Theoretical spreading rate	<table border="1"><thead><tr><th></th><th>Dry film (µm)</th><th>Wet film (µm)</th><th>Theoretical spreading rate (m²/l)</th></tr></thead><tbody><tr><td>paint</td><td>40</td><td>80</td><td>12.5</td></tr><tr><td>clear coat</td><td>40</td><td>88</td><td>11.3</td></tr></tbody></table> <p>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.</p>		Dry film (µm)	Wet film (µm)	Theoretical spreading rate (m ² /l)	paint	40	80	12.5	clear coat	40	88	11.3
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paint	40	80	12.5										
clear coat	40	88	11.3										
Practical spreading rate	The values depend on the application technique, surface conditions, overspray, etc.												
Colours	Factory colours by agreement.												
Tinting system	Teknotint												
Gloss (60°)	Full gloss												
Hardener	Comp. B: TEKNODUR HARDENER 0100/0200												
Mixing ratio (A:B)	4:1 parts by volume												
Pot life, +23 °C	6 h												

Thinner

Standard thinners: TEKNOSOLV 9526 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 for the paint are: TEKNOPLAST PRIMER -series. Also suitable primers are e.g. INERTA PRIMER 5 and INERTA 51 MIOX.

Application method

Airless spraying, Conventional spraying

Application

MIXING OF THE COMPONENTS: 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. Before use clean the spray gun and paint vessels with a thinner suitable for the paint.

Stir thoroughly before use. 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

Dilute 10 - 30%, when required. Do not use universal thinners, since they may contain alcohol which will react with the hardener.

Standard thinners: TEKNOSOLV 9526 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 9529. Used when spray painting large surfaces with mist coating technique.

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)		
	Increase in film thickness and rise in the relative humidity of the air in the drying space usually slow down the drying process.		
Overcoatable	surface temperature	by itself	
		min.	max.
	+5°C	20 h	-
	+23°C	12 h	-

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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