

TEKNODUR AQUA 3390

Polyurethane Top Coating Paint and Varnish

PAINT TYPE	TEKNODUR AQUA 3390 is a water-based, two pack polyurethane top coat and varnish. The hardener is an aliphatic isocyanate resin.
USAGE	The paint is used as a top coat in water-based polyurethane systems exposed to atmospheric corrosion. The use of TEKNODUR AQUA 3390 Polyurethane Varnish is recommended when the top coat is required to have excellent gloss and colour retention.

TECHNICAL DATA

Mixing ratio	Base (Comp. A): Hardener (Comp B): TEKNODUR AQUA HARDENER 7313	5 parts by volume 1 part by volume	
Pot life, +23 °C	1½ h		
Solids	paint: 42 ±2% by volume varnish: 40 ±2% by volume		
Total mass of solids	paint: abt. 560 g/l varnish: abt. 450 g/l		
Volatile organic compound (VOC)	abt. 90 g/l		
Recommended film thickness and theoretical spreading rate	Dry film (µm)	Wet film (µm)	
	paint: 40 varnish: 40	95 100	Theoretical spreading rate (m ² /l) 10,5 10,0

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 2 ½ h
- touch dry (ISO 9117-5:2012)	after 6 ½ h
- fully cured	after 7 days

Overcoatable, 50% RH (dry film 40 µm)

surface temperature	by itself	
	min.	max.*
+10°C	after 1 d	after 14 d
+23°C	after 6 h	after 14 d

* 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	Water or TEKNOSOLV 1936
Clean up	Water, TEKNOSOLV 6060, TEKNOSOLV 9521
Finish	TEKNODUR AQUA 3390-09: gloss TEKNODUR AQUA 3390-07: abt. 70 (viewed at 60° angle) TEKNODUR AQUA 3390-05: semigloss TEKNODUR AQUA 3390-03: semi-matt
Colours	By agreement. The paint is included in the Teknomix tinting system.
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:

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

The base and hardener are mixed together and stirred mechanically thoroughly before application down to the bottom of the vessel. The hardener is mixed undivided and in one go into the base. The stirring time is at least 5 minutes. Inadequate stirring results in imperfect curing and impaired film properties. Ready paint is to be used within 1½ h from mixing. After this the mixture is unfit for use.

Application

For the application it is recommended to use airless spray (nozzle 0.011-0.013") or conventional spray. Conventional spray gives the best result. The components are not to be thinned separately.

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.

Application conditions and drying

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 70%. 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.

Especially when applying with a spray the relative air humidity should be above 30% to avoid the onset of the drying process to be too fast.

Surface temperature, film thickness, drying temperature and ventilation affect the drying of the paint. The paint is dry when all water has evaporated from the paint film. It is essential that all painted surfaces have sufficient ventilation. If the painted surface will be exposed to weathering, moisture or low temperatures (below +10°C) thick paint films are to be avoided and the last coat must be allowed to dry for at least 24 hours (at +23°C) before exposure.

Low temperatures and insufficient ventilation slow down the drying process.

Cleaning of the equipment

When painting equipment used for application of solvent-borne paints is used for water-borne paints the equipment must be cleaned carefully:

1. Wash with solvent.
2. Wash with washing solvent for water-borne paints, e.g. TEKNOSOLV 6060.
3. Rinse with water.

When shifting from water-borne to solvent-borne paints act in reverse order.

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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