

**TEKNODUR COMBI 0450**
Polyurethane Paint

PAINT TYPE	TEKNODUR COMBI 0450 is a two pack anticorrosive pigmented polyurethane paint. The hardener is an aliphatic isocyanate resin.
USAGE	Used as a one layer paint in Coating Systems K49. The paint can also be used as a top coat in Polyurethane Coating Systems. TEKNODUR COMBI 0450 is suitable on steel, zinc and aluminium surfaces. The paint can be used on many kinds of substrates and on many old paint surfaces that are well attached to the substrate.
SPECIAL PROPERTIES	The paint produces a semigloss or semi-matt film with good mechanical and weather resistance. Varnishing with TEKNODUR 0250 or 0290 Polyurethane Varnish is recommended when the topcoat is required to have excellent gloss and colour retention.

TECHNICAL DATA

Mixing ratio	Base (Comp. A): Hardener (Comp. B): TEKNODUR HARDENER 0400	10 parts by volume 1 part by volume
Pot life, +23 °C	4 h	
Solids	43 ±2% by volume	
Total mass of solids	TEKNODUR COMBI 0450-05: abt. 630 g/l TEKNODUR COMBI 0450-02: abt. 700 g/l	

Volatile organic compound (VOC)	abt. 530 g/l		
Recommended film thickness and theoretical spreading rate	Dry film (µm)	Wet film (µm)	Theoretical spreading rate (m ² /l)
	40	93	10,8
	60	139	7,2
	80	186	5,4
	100	232	4,3

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 30 minutes
- touch dry (ISO 9117-5:2012) after 5 h

Overcoatable, 50% RH (dry film 40 µm)

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

Thinner Standard thinners: TEKNOSOLV 9521 and TEKNOSOLV 6220.
Other thinners suitable for the product: see page 2.

Clean up TEKNOCLEAN 6496

Finish TEKNODUR COMBI 0450-05: semigloss
TEKNODUR COMBI 0450-02: semi-matt

Colours By agreement.

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 (standard ISO 8501-1). Roughening the surface of thin-plate improves the adhesion of the paint to the substrate.

ZINC SURFACES: Hot-dip-galvanized steel structures that are exposed to atmospheric corrosion can be painted if the surfaces are sweep blast-cleaned (SaS) till matt all over. Suitable cleaning agents are, e.g. aluminium oxide and natural sand. It is not recommended according to standard ISO 12944-5 to paint hot-dip-galvanized objects that are subjected to immersion strain. Painting of hot-dip-galvanized objects that are subjected to immersion strain must be discussed separately with Teknos.

It is recommended that new zinc-coated thin-plate structures are treated with sweep blast-cleaning (SaS). Surfaces that have been weathered to matt can be treated also with RENSA STEEL washing agent for galvanized surfaces.

ALUMINIUM SURFACES: Treat the surfaces with RENSA STEEL washing agent for galvanized surfaces. Surfaces that are exposed to weathering are also roughened up with sweep blast-cleaning (AlSaS) or sanding.

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. 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 has to be dry. During the application and drying period the temperature of the ambient air, the surface and the paint shall be above +5°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.

Application

Before use stir the paint thoroughly.

Apply by conventional spray or airless spray. Suitable airless nozzle size 0.011 - 0.013".

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

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.

Do not use universal diluents or thinners, since they may contain alcohol which 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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