

# TEKNODUR COMBI 3440-05

## Polyurethane paint

TEKNODUR COMBI 3440-05 is a two-component anticorrosive pigmented polyurethane paint with low solvent content where the hardener used is an aliphatic isocyanate resin. Used as a one-layer paint on aluminium and anodized aluminium.

The paint produces a film with good mechanical and weather resistance. The product must be dried at about +60°C for 1 hour as the adhesion and mechanical properties will be improved.



## TECHNICAL DATA

|  |  |                      |   |
|--|--|----------------------|---|
| <b>Recommended substrate</b>           | Aluminium  |                      |   |
| <b>Solids</b>                          | Approx. 62% by volume  |                      |   |
| <b>Total mass of solids</b>            | Approx. 1443 g/l   |                      |   |
| <b>Volatile organic compound (VOC)</b> | Approx. 339 g/l (DIRECTIVE 2010/75/EU)<br>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>      | <b>Dry film (µm)</b>   | <b>Wet film (µm)</b> | <b>Theoretical spreading rate (m<sup>2</sup>/l)</b> |
|  | 40   | 65                   | 15  |
|  | 80   | 129                  | 7.7   |
|  | 100  | 162                  | 6.2   |
|  | 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.                           |                      |   |
| <b>Practical spreading rate</b>        | The values depend on the application technique, surface conditions, overspray, etc.  |                      |   |
| <b>Tinting system</b>                  | Teknotint  |                      |   |
| <b>Gloss (60°)</b>                     | Semi-gloss   |                      |   |
| <b>Hardener</b>                        | Comp. B: TEKNODUR HARDENER 7230  |                      |   |
| <b>Mixing ratio (A:B)</b>              | 6:1 parts by volume  |                      |   |
| <b>Pot life, +23 °C</b>                | 60min  |                      |   |

**Thinner**

Do not use universal thinners, as they might be incompatible with the painting system.

Fast thinner: TEKNOSOLV 7140-00.

Standard thinner: TEKNOSOLV 6220-00.

Slow thinner: TEKNOSOLV 6190-00.

**Storage**

The storage stability is shown on the label. Store in a cool place and in tightly closed containers. The hardener reacts with air humidity. Use opened hardener within two weeks.

**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:

**ALUMINIUM SURFACES:** Treat the surfaces with suitable Cleaning Agent. Surfaces that are exposed to weathering are also roughened up with sweep blast-cleaning (AlSaS) or sanding.

**ANODIZED ALUMINIUM SURFACES:** It is important that anodizing is done according to valid standards. It is recommended that Teknos' laboratory has tested and approved the quality of the anodizing before use of TEKNODUR 3440. Clean the surfaces with TEKNOSOLV 6560.

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.

**Application method**

Conventional spraying, Air-assisted airless spraying, Airless 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.

| Equipment                                | Suggested viscosity DIN-cup 4 mm +20°C |
|--|--|
| Conventional spraying                    | 18-20 s                                |
| Air-assisted airless spraying            | 20-30 s                                |
| Airless spraying (nozzle: 0.009"-0.013") | 20-30 s                                |

## Application conditions

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.

## Drying time

+23°C / 50% RH (dry film 80 µm)

### - dust free

30 minutes (ISO 1517:1973)

### - touch dry

5 hours (DIN 53150:1995)

## Overcoatable

| Surface temperature | by itself |          |
|---------------------|-----------|----------|
|                     | min.      | max.     |
| +5°C                | 20 hours  | 2 days   |
| +23°C               | 4 hours   | 24 hours |
| +60°C               | 1 hour    | 24 hours |

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

## Cleaning

TEKNOSOLV 6220-00

## HEALTH AND SAFETY

### Safety and precaution measures

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.

See safety data sheet.

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