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DATA SHEET 1144
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TEKNODUR COMBI 3430

Polyurethane Paint

PAINT TYPE

TEKNODUR COMBI 3430 is a two pack anticorrosive pigmented polyurethane paint with low solvent content where the hardener used is an aliphatic isocyanate resin.

USAGE

Used as a one layer paint. The paint can also be used as a top coat in Polyurethane Coating Systems. It is suitable for use on steel, zinc and aluminium surfaces. The paint can be used on several different types of substrates and on many well attached old paint surfaces.

SPECIAL PROPERTIES

The paint produces a high gloss film with good mechanical and weather resistance. The use of TEKNODUR 0250 or TEKNODUR 0290 Polyurethane Varnish is recommended on objects when the topcoat is required to have excellent gloss and colour retention.
Version TEKNODUR COMBI 3430-09 comes up to the specifications of Swedish Standard SSG 1026-TB.

TECHNICAL DATA

Mixing ratio

Base (Comp. A):	6 parts by volume
Hardener (Comp B): TEKNODUR HARDENER 7230	1 part by volume

Pot life, +23 °C

1½ h

Solids

3430-01: 61 ±2% by volume
3430-02: 61 ±2% by volume
3430-05: 61 ±2% by volume
3430-09: 58 ±2% by volume

Total mass of solids

3430-01: abt. 1120 g/l
3430-02: abt. 1120 g/l
3430-05: abt. 1120 g/l
3430-09: abt. 920 g/l

Volatile organic compound (VOC)

3430-01: abt. 350 g/l
3430-02: abt. 350 g/l
3430-05: abt. 350 g/l
3430-09: abt. 380 g/l

Recommended film thickness and theoretical spreading rate

Dry film (µm)	Wet film (µm)	Theoretical spreading rate (m²/l)
80	131-138	7,2-7,6
100	164-172	5,8-6,1
120	197-207	4,8-5,1

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, +23°C / 50% RH (dry film 80 µm)

- **dust free (ISO 9117-3:2010)** after 45 min
- **touch dry (ISO 9117-5:2012)** after 5 h
- **fully cured** after 7 days

Overcoatable, 50% RH (dry film 80 µm)

	by itself	
surface temperature	min.	max.*
+5°C	after 20 h	18 months or Extended**
+23°C	after 4 h	18 months or Extended**

* A completely clean surface is mandatory to ensure the best intercoat adhesion. If the maximum overcoating interval has been exceeded, the surface must be roughened before overcoating. Increase in film thickness and rise in the relative humidity of the air in the drying space slow down the drying process and effect the overcoating properties.
** Maximum overcoating interval can be extended in certain circumstances. To determine if extended overcoating interval is applicable please consult Teknos representative in written form.

If some other top coats besides the ones mentioned above are used, please contact Teknos representative for overcoating recommendations.

Thinner

Standard thinner:
TEKNOSOLV 9526, TEKNOSOLV 6220 or TEKNOSOLV 9521

Clean up

TEKNOCLEAN 6496

Finish

3430-01: matt
3430-02: semi-matt
3430-05: semigloss
3430-09: gloss

Colours The paint is included in the Teknomix tinting system.

SAFETY MARKINGS See Safety Data Sheet.

PTO

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

Before use stir the paint thoroughly.
When needed, thin the paint with TEKNOSOLV 9526, TEKNOSOLV 6220 or TEKNOSOLV 9521.
Do not use universal diluent or thinner, since they react with the hardener.
Apply by conventional spray or airless spray. Use airless spray nozzle size 0.013 - 0.017".
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.

Before use clean the spray gun and paint vessels with the paint's own thinner.

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.

ADDITIONAL INFORMATION

The storage stability is shown on the label. The hardener reacts with air humidity. Store in a cool and dry place in a tightly closed can.

Use opened hardener within two weeks.

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

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