DATA SHEET 284

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TEKNODUR PRIMER 5

Polyurethane Primer

PAINT TYPE TEKNODUR PRIMER 5 is a two-pack polyurethane primer cured with aliphatic isocyanate resin.

USAGE TEKNODUR PRIMER 5 is a high-class, multipurpose primer for steel surfaces. It is intended for use

as a primer on cars, transport equipment as well as agricultural, forestry and earth moving machinery.

Also suitable for painting wooden surfaces.

SPECIAL PROPERTIES TEKNODUR PRIMER 5 is a quick-drying and filling primer surfacer that forms a dense and even

paint film. It can be used as a priming coat even for high performance top coats. The paint is easy to

rub down and it can also be used as a wet-on-wet system with a polyurethane top coat.

TECHNICAL DATA

Mixing ratio

Base (Comp. A):

9 parts by volume

Hardener (Comp B): TEKNODUR PRIMER 5 HARDENER 1 part by volume

Pot life, +23 °C 6 h

Solids 45 ±2% by volume

Total mass of solids abt. 835 g/l

Volatile organic compound (VOC) abt. 480 g/l

Recommended film thickness and Dry film (μm) Wet film (μm) Theoretical spreading rate (m²/l)

40 88 11,2 100 222 4,5

200 444 2,3

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

theoretical 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 20 min - touch dry (ISO 9117-5:2012) after 1 h - dry to handle after 3 h

- fit for sanding at the latest after 5 h
- forced drying 60°C / 30 min

Overcoatable, 50% RH (dry film 40 µm)

	by itself or with TEKNODUR top coats. *	
surface temperature	min.	max.
+5°C	after 16 h	-
+23°C	after 2 h	-

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

* AQUATOP -series paints can be used for top coating when painting wood.

Thinner Standard thinners: TEKNOSOLV 9521 and TEKNOSOLV 9526 (non-aromatic).

Clean up TEKNOCLEAN 6496

Finish Semi-matt

Colours White and grey

SAFETY MARKINGS See Safety Data Sheet.

РТО

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 $2\frac{1}{2}$ (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.

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.

POLYESTER PUTTY SURFACES: Dry sand the surfaces (P80 or P120) and wash off the dust with thinner.

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.

Prefabrication primer

KORRO E Epoxy Prefabrication Primer can be used, when required.

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.

When the paint is used as a normal primer surfacer it is diluted (for conventional spraying) by 10 - 20% with TEKNOSOLV 9521 or TEKNOSOLV 9526. Depending on the film thickness wanted the paint is sprayed in 1 - 2 coats. The dry film thickness will then be 40 - 100 μ m. When the paint has dried it can be sanded (dry sanding P280/P320, wet sanding P600/P800).

If a thicker coat than usual is needed, the paint can also be sprayed without thinning. In this case the maximal wet film thickness is 500 μ m (about 220 μ m dry film thickness), which must not be sprayed in one coat but preferably in 3 - 4 applications.

For touch-up painting TEKNODUR PRIMER 5 can be used as a wet-to-wet primer. It is then thinned by about 25% with TEKNOSOLV 9521 or TEKNOSOLV 9526. Spray one film of normal thickness (dry film about 25 μ m). Allow the paint to dry for 15 minutes, then apply by spraying a polyurethane top coat, e.g. one of the TEKNODUR series. AQUATOP -series top coat for wood surfaces.

Apply the paint by conventional or airless spray (nozzle 0.013 - 0.018") or by brush.

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.

