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TEKNODUR COMBI 770-500

Polyurethane Paint

PAINT TYPE

TEKNODUR COMBI 770-500 is a two-pack, fast drying, polyurethane paint containing zinc phosphate. The hardener is an aliphatic isocyanate resin.

USAGE

Intended to be used direct to metal for anticorrosive systems in environments classified up to C2 and C3. Can be used as a topcoat in epoxy – polyurethane systems exposed in urban and industrial atmosphere.

SPECIAL PROPERTIES

The product forms high decorative, semigloss coating, good adhered to substrate with good mechanical properties. Resistant to weathering, sun radiation, salt and alkali solutions, thinned acid solutions and petroleum products.

TECHNICAL DATA

Mixing ratio

Base (Comp. A): 100 parts by volume
Hardener (Comp. B): TEKNODUR HARDENER 7332 9 parts by volume

Pot life, +23°C

2 h

Solids

54±2% by volume

Total mass of solids

abt. 820 g/l

Volatile organic compound (VOC)

abt. 430 g/l

Recommended film thickness and theoretical spreading rate

Dry film (µm)	Wet film (µm)	Theoretical spreading rate (m^2/l)
80	148	6,8
100	185	5,4

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 80µm)

- dust dry after 40 min

- touch dry after 2 h

Overcoatable, 50% RH (dry film 80µm)

	by itself	
surface temperature	**min.**	**max.**
+10°C	after 4 h	18 months or Extended**
+23°C	after 2 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.

Thinner

TEKNOSOLV 433- fast evaporating, TEKNOSOLV 9521- slow evaporating

Clean up

TEKNOSOLV 433, TEKNOSOLV 9521

Finish

Semigloss

Colours

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:
STEEL SURFACES: Remove mill scale and rust by blast cleaning to preparation grade Sa $2^1/_2$ (standard ISO 8501-1). Roughening the surface of thin-plate improves the adhesion of the paint to the substrate.
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. Minimum surface temperature -5°C (surface frost- and ice-free) and at least 3°C higher than dew point; relative air humidity below 80% during the application and drying period.

Application

Before use stir the paint thoroughly.
Apply by airless spray, brush, roller, and after diluting – conventional spray. Suitable airless nozzle size 0.011 – 0.013”.
Before use clean the spray gun and mixing vessels with a thinner TEKNOSOLV 433 or TEKNOSOLV 9521.

If a coating with better scratch resistance is needed, instead of the standard hardener TEKNODUR HARDENER 7332, use TEKNODUR HARDENER 7332-01 in the same mixing ratio. Using this hardener will not change the pot life and the drying properties of the coating.

Universal diluents or thinners cannot be used, since they may contain alcohol that 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. 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.