TEKNONISO COMBI 333-300

Polyurethane paint

TEKNONISO COMBI 333-300 is a two-component polyurethane paint where the hardener used is a free of isocyanate resin.
Is used in polyurethane systems when the topcoat is required to have good weather resistance. As the paint is anti-corrosive pigmented it can be used as single coat paint on metal surfaces.

The paint produces good mechanical properties and good weather resistance.

TECHNICAL DATA

Fields of application	Bridge, Machinery, Steel constructions, Transportation equipment
Recommended substrate	Metal
Solids	Approx. 80% by volume
Total mass of solids	Approx. 1100 g/l
Volatile organic compound (VOC)	Approx. 200 g/l (DIRECTIVE 2010/75/EU) 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.
Theoretical spreading rate	See table below
Practical spreading rate	The values depend on the application technique, surface conditions, overspray, etc.
Colours	By agreement.
Tinting system	Teknotint
Gloss (60°)	Semi-matt
Hardener	Comp. B: TEKNONISO HARDENER 7400-00
Mixing ratio (A:B)	4:1 parts by volume
Pot life, +23°C	8h

Dry film (µm)	Wet film (µm)	Theoretical spreading rate (m^2/l)
80	96	9.9
120	145	6.6
160	193	4.9
200	253	4.0

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.

Thinner	Conventionel spray: Dilution with 2-10% thinner recommended. Do not use universal thinners, as they might be incompatible with the painting system. Standard thinner: TEKNOSOLV 7140-00. Slow thinner: TEKNOSOLV 6190-00.
Storage	The ready paint reacts with air humidity. Use opened paint (base (comp. A)) within two weeks. Store in a cool place and in tightly closed containers. The storage stability is limited.

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: STEEL SURFACES: Remove mill scale and rust by blast cleaning to preparation grade Sa 2½ (standard ISO 8501-1). The profile of the blast-cleaned surface should be coarse (reference comparator "G") ISO 8503-2 (G). The surface of thin-plate can be prepared e.g. by phosphating. 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. 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. 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. 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, Airless spraying Suitable airless nozzle size 0.013 - 0.017" Suitable conventional spray nozzle size 1.8-2.2 mm, pressure 3 bar. All equipment that will be in direct contact with the paint must be cleaned before use with a thinner suitable for the paint.
Application	Mixing of the components: Take into consideration the pot life of the mixture when estimating the amount to be mixed at a time. The base must be stirred until it is homogeneous before mixing the components. Before application the base and hardener are mixed in right proportion. Stir thoroughly down to the bottom of the vessel. The stirring time is at least 5 min. Inadequate stirring or incorrect mixing ratio results in imperfect curing and impaired film properties.
Application conditions	During the application and drying period the temperature of the ambient air and the surface shall be above +5 °C and the relative air humidity below 80%. The temperature of the product above +15 °C during mixing and spraying. 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 120 µm)
- dust free	30 min. (ISO 9117-4:2012)
- touch dry	1.5 h (ISO 9117-4:2012)
- through dry	3 h (ISO 9117-5:2012 stage 6) The drying times are affected by relative humidity. To ensure fast drying it's recommended to keep humidity between 20-60% RH.
Overcoatable	

Surface temperature	**by itself**	
(dry film 120 µm)	min.	max.
+5 °C	1 h	16 h
+23 °C	15 min.	8 h

Cleaning	TEKNOSOLV 7140-00

HEALTH AND SAFETY

Safety and precaution measures	See safety data sheet. 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.

Teknos Group Oy Takkatie 3, P.O.Box 107 FI-00371 Helsinki, Finland Tel. +358 9 506 091