

# TEKNOMASTIC COMBI 80-500

## Epoxy Top Coat

<b>PAINT TYPE</b>	TEKNOMASTIC COMBI 80-500 is a two-pack solvent-borne epoxy paint with low solvent content.
<b>USAGE</b>	Used as a priming and top coat in abrasion and chemical resistant epoxy coating systems on blast-cleaned steel. Can also be used for priming and top coating zinc, aluminium, thin-plate and acid-proof steel surfaces and as an intermediate and top coat over zinc epoxy and zinc silicate primers.
<b>SPECIAL PROPERTIES</b>	The paint is quickly overcoatable and is therefore suited to a fast painting tempo. The paint film withstands heavy abrasion, oils, grease, solvents, chemical splashing and also immersion in water. The paint is suitable for maintenance painting of steel surfaces which are cleaned at least to preparation grade St 2.

**TECHNICAL DATA**

<b>Mixing ratio</b>	Base (Comp. A): Hardener (Comp B): TEKNOMASTIC HARDENER 7465	4 parts by volume 1 part by volume	
<b>Pot life, +23 °C</b>	2 h		
<b>Solids</b>	82 ±2% by volume (ISO 3233:1988)		
<b>Total mass of solids</b>	abt. 1300 g/l		
<b>Volatile organic compound (VOC)</b>	abt. 200 g/l		
<b>Recommended film thickness and theoretical spreading rate</b>	Dry film (µm)	Wet film (µm)	
	100	121	Theoretical spreading rate (m <sup>2</sup> /l)
	150	182	8,2
	200	243	5,5
			4,1

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 100 µm)**

- dust free (ISO 9117-3:2010) after 2 h
- touch dry (ISO 9117-5:2012) after 6 h
- fully cured after 7 days

**Overcoatable (dry film 100 µm)**

surface temperature	by itself		by TEKNOPLAST top coats		by TEKNODUR 0050 top coats	
	min.	max. *	min.	max. *	min.	max. *
+10°C	after 8 h	after 3 months	after 8 h	after 7 d	after 1 d	after 7 d
+23°C	after 4 h	after 3 months	after 4 h	after 7 d	after 6 h	after 7 d

\* Maximum overcoating interval without roughening.

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

<b>Thinner</b>	TEKNOSOLV 9506
<b>Clean up</b>	TEKNOSOLV 9506 or TEKNOSOLV 9530
<b>Finish</b>	Semigloss
<b>Colours</b>	The paint is included in the Teknotint tinting system.
<b>SAFETY MARKINGS</b>	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 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.

From the bare steel surfaces the rust is removed to preparation grade St 2 (ISO 8501-1).

An alternative method to dry cleaning is high-pressure water jetting with a pressure of over 70 MPa. This water-jetting can be used on intact, well adhering paint coats and/or on steel. After the water jetting the intact paint coats must have a rough surface structure. The cleanliness of the steel surface must be Wa 2 (ISO 8501-4:2006) or according to the specification. A flash-rust degree of maximum M (ISO 8501-4:2006) is allowed before application.

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, KORRO SE Zinc Epoxy and KORRO SS Zinc Silicate Prefabrication Primers 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 must be dry. During the application and drying period the temperature of the ambient air, the surface and the paint shall be above +10°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.

If required, dilute the paint with TEKNOSOLV 9506.

Apply preferably by airless spray as only this method provides the recommended film thickness in a single operation. Use airless spray nozzle 0.013 - 0.019". Brush or roller can be used for touching up and painting small areas.

When twin-feed spray is used for application, the mixing ratio of the dosage pump must be 4:1. The feed pump pressure and the consumption of components is to be checked during application to ensure of the correct mixing ratio. The components cannot be thinned if twin-feed spray with fixed ratio is used.

**ADDITIONAL INFORMATION**

The storage stability is shown on the label. Store in a cool place and in tightly closed containers.

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](http://www.teknos.com).



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