

**TEKNOFLOOR 500F**  
**Epoxy Coating****PAINT TYPE**

TEKNOFLOOR 500F is a solvent-free two-pack epoxy coating for concrete floors. The product can be used on the floors of food production spaces (Smithers Rapra, Certificate Number GC0070).

**USAGE**

Used on all industrial floors where a level, conformal coating is required that has a good mechanical resistance.

**SPECIAL PROPERTIES**

The coating withstands water, chemicals, oil, grease and petrol. It does not resist strong acids nor continuous attacks by organic acids or strong solvents. The abrasion resistance of the coating is very good. When good colour and gloss retention is required TEKNOFLOOR 500F can be overcoated with polyurethane top coats of the TEKNODUR 0100 series.

The coating becomes level by itself on even surfaces.

Properties of a 2 mm mass:

Property	Value	Standard
Compression strength	74 MPa	ISO 604: 2002
Water permeability	waterproof	SFS-EN 13553
Fire resistance class	B <sub>s</sub> -s1	EN 13501-1: 2002

**APPROVALS**

The product has CE approval for protection of concrete structures. Additional information: see page 3: "CE MARKING".

The product has been classified to **Group M1** in Emission Classification of building materials

**TECHNICAL DATA****Mixing ratio**

The Coating Thickness	300 - 500 µm	2 mm
Base (Comp. A):	9 l	9 l
Hardener (Comp. B): TEKNOFLOOR HARDENER 500H	2.7 l	2.7 l
Quartz sand or natural sand, grain size 0.1 - 0.6 mm	-	12 l
Ready mixture	11.7 liters	abt. 18 liters

**Pot life, +23 °C**

30 - 60 min (mixture poured out on the floor)  
10 - 15 min (mixture kept in the vessel)

**Solids**

100 % by volume

**Total mass of solids**

abt. 1200 g/l

**Volatile organic compound (VOC)**

abt. 0 g/l

**Spreading rate**

Coating: 0,3 - 0,5 l mixture/m<sup>2</sup> depending on film thickness.  
Composition: 2 l ready composition/m<sup>2</sup> depending on the film thickness.

**Average film thickness**

Coating: 0,3 - 0,5 mm  
Composition: 2 mm

**Drying time at +23°C / 50% RH**

- dust free (ISO 9117-3:2010)

- touch dry (ISO 9117-5:2012)

- fully cured

after 6 h

after 16 h

after 7 days

**Overcoatable**

surface temperature	by itself	
	min.	max. *
+10°C	after 24 h	after 2 days
+23°C	after 16 h	after 1 day

\* Maximum overcoating interval without roughening.

**Clean up**

TEKNOSOLV 9506  
Do not dilute the coating!

**Finish**

Full gloss

**Colours**

The product is included in the Teknomix tinting system, base paints 1 and 3. Also certain colours of the RAL Colour Card by factory delivery.

NOTE! Sunlight will change the colour and glossiness of the coating in the course of time.

**SAFETY MARKINGS**

See Safety Data Sheet.

**DIRECTION FOR USE****Surface preparation**

**NEW CONCRETE FLOOR:** The concrete must be at least 4 weeks old and well-hardened so that all moisture from casting is bound and the surface dry. The moisture of the concrete must not exceed 97% as relative humidity or 4% by weight (by 54 / BLY 12).

Dense laitance is to be removed from steel-trowelled concrete by shot-blasting or surface grinding. Brittle and powdery top layers are treated so that the solid concrete containing aggregate is exposed. Thereafter all cement dust is removed by vacuum cleaner or brush. The concrete surface must be clean of anything that might hinder the adhesion.

**OLD CONCRETE FLOORS:** Uncoated, greasy floors are cleaned by emulsion wash. Thereafter laitance is removed by shot-blasting, scarifying, surface grinding or etching. Scarifying and shot-blasting are the best methods for removal of disrepair concrete or old flaking paint or composition layers.

**Choosing the preparation method**

The surface preparation method for both new and old concrete is chosen according to condition of the concrete and strain the floor will be exposed to. The best method for floors to be attacked by heavy abrasion, chemicals or hot water is scarifying or shot-blasting. Surface grinding is enough if the floor will be subjected to minor abrasion only. In general, surface preparation by etching is not recommended for composition floors within industry. Etching is mainly used for small areas when mechanical preparation methods are not applicable.

Etching is to be done with RENSA ETCHING etching liquid or with diluted hydrochloric acid (1 part acid to 4 parts water). Rinse the floor with water after etching and allow to dry.

**Application conditions**

The surface to be coated must be dry. The temperature of the ambient air, the surface and the coating shall be above +10°C and the relative air humidity below 80% during the application and drying period.

Additionally during the application and the drying period the temperature of the coating and the surface to be coated shall be at least 3°C above of the dew point of the air.

**Special jobs**

All special jobs should be done before the application of the actual priming. E.g. cutting grooves at joints between steel and concrete. Cutting working and expansion joints open. Fitting up skirting and rounding of corners. Filling cavities and cervices, and possible levelling down the floor.

Filling can be done with TEKNOPOX FILL or with stiff putty prepared by adding an adequate amount of dry sand (e.g. 0.1 - 0.6 mm) to undiluted varnish.

**Priming varnishing**

The priming is done with TEKNOFLOOR PRIMER 310F Epoxy Varnish. For mohair roller application the varnish is diluted about 30% with TEKNOSOLV 9515 or TEKNOSOLV 9506. Spread the varnish 0.2 - 0.3 l/m<sup>2</sup>. If the concrete floor is very porous, the second coat can be applied with TEKNOFLOOR PRIMER 310F Epoxy Varnish according to the instructions for overcoating time given in the Data Sheet. TEKNOFLOOR PRIMER 306F Epoxy Varnish can be used on fresh, 2 - 27 days old concrete surface according to the instructions given in the Data Sheet.

**Application**

Mixing of components: Mix Base and Hardener with each other immediately before use and stir thoroughly. It is recommended to use a slow-rotating drilling machine equipped with a stirrer for mixing. Careless stirring or incorrect mixing ratio will cause an irregular curing and impaired film properties.

The application is done within 6 - 24 hours of priming depending on the temperature.

The recommended coat thickness is achieved by a suitable indentation of the steel trowel. Smooth down with a short-haired mohair roller.

**Coating**

Applying films above 1.0 mm, while the mixer is rotating add slowly quartz sand or natural sand (see table) into the mixture. Carry on mixing until the component is homogeneous.

Spread the composition with an adjustable trowel, the slit of which can be adjusted to give the coat thickness required. Smooth the coat with a mohair roller and use a plastic porcupine roller to delete air bubbles.

It is recommended that paint of the same batch is used for painting large uniform floors. If paint from different batches must be used, the application is to be planned so that the seams between batches are done to natural lines, i.e. sills and expansion joints.


Clean all equipment immediately after use with TEKNOSOLV 9506.

**ADDITIONAL INFORMATION**

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

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## CE MARKING

	
<b>0809</b>	
Teknos Oy Takkatie 3, P.O. Box 107 FI-00371 Helsinki, Finland 13 Declaration of Performance No. 0006	
0809-CPR-1063 EN 1504-2:2004 Surface protection products – Coating Physical resistance (5.1) Chemical resistance (6.1)	
Abrasion resistance	Requirement: Weight loss less than 3000 mg
Capillary absorption and permeability to water	Requirement: $w < 0,1 \text{ kg/m}^2 \times \sqrt{h}$
Resistance to severe chemical attack	Requirement: Reduction in hardness of less than 50 %
Impact resistance	Class I: $> 4 \text{ Nm}$
Adhesion strength by pull-off test	Requirement: Rigid system with trafficking: $\geq 2,0 (1,5) \text{ N/mm}^2$
Reaction to fire	$B_f - s1$
Dangerous substances	See safety data sheet

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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