

TEKNOFLOOR 300F

Epoxy varnish

TEKNOFLOOR 300F is a solvent-free, two-pack epoxy varnish for concrete floors.



Use: For priming under epoxy coatings and flooring compositions and colour sand mortars. When filled with sand, the varnish can be used for repairing of concrete floors and rounding off the corners.

TEKNOFLOOR 300F is resistant to abrasion and chemicals. Diluted varnish penetrates into the pores of the concrete so sealing the surface and ensuring good adhesion to the substrate. NOTE! The colour of the varnish may change on objects exposed to sunlight. The product has CE approval for protection of concrete structures. TEKNOFLOOR 300F is suitable for use in food preparation and packaging environments (Smithers Rapra, Certificate Number GC0071).

TECHNICAL DATA

Certificates, approvals and classification	CE marking, Smithers Rapra
Recommended substrate	Concrete
Binder	Epoxy
Solids	100 % by volume
Total mass of solids	Approx. 1100 g/l
Volatile organic compound (VOC)	Approx. 0 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.
Practical spreading rate	Depending on the roughness and absorbency of the surface. Standard value for a steel-trowelled concrete floor: for priming 3 - 6 m ² /l.
Gloss (60°)	Full gloss
Hardener	Comp. B: TEKNOFLOOR HARDENER 300H
Mixing ratio (A:B)	2:1 parts by volume
Pot life	+23°C Undiluted mixture: 30 - 40 min (poured out on the floor) 10 min (kept in the vessel) Diluted mixture: 40 - 60 min (poured out on the floor)
Thinner	TEKNOSOLV 9506, TEKNOSOLV 9515.

Storage

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

DIRECTION FOR USE**Surface preparation**

NEW CONCRETE SURFACES: 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 SURFACES: 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.

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. Rinse the floor with water after etching and allow to dry.

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.

Additional instructive information for surface preparation can be found in standards EN ISO 12944-4 and ISO 8501-2.

Application method

Roller

Application

The priming coating:

The priming coat is applied "wet-to-wet" with varnish diluted 30 - 50% with TEKNOSOLV 9506 or TEKNOSOLV 9515. The amount of thinner depends on the density of the concrete. Pour the mixture on the floor immediately after mixing as a streak. Apply e.g. with a short-piled roller, generously so that the surface is sealed. Recoat immediately all areas that have absorbed the varnish completely. The number of priming coats depend on the quality of the concrete's surface. The priming coating may have to be done several times. If the surface remains porous, air bubbles may form when the coating is applied, and this will cause craters on the surface.

The coating can be applied when the priming coat has dried for at least 6 hours. Avoid intervals longer than 24 hours. If the priming coat has been applied more than 24 h ago the surface must be rubbed down and cleaned before it is overcoated.

The top coating:

The top coat is applied with varnish diluted 30 - 50% with TEKNOSOLV 9506 or TEKNOSOLV 9515. Pour the mixture on the floor immediately after mixing as a streak and apply e.g. with short-piled roller. If necessary, the top coating can be redone after 6 – 24 h from the first application.

Application conditions

During the application and drying period the temperature of the ambient air, the surface and the product shall be above +10°C and the relative air humidity below 80%. 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

- fit for light traffic

16 h

The drying time is as previously mentioned when the temperature of the product as well as air and surface is +23°C.

Overcoatable

surface temperature	by itself, TEKNOFLOOR 400F or TEKNOFLOOR 500F	
	min.	max.*
+10°C	24 h	48 h
+23°C	6 h	24 h

* 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.

Cleaning

TEKNOSOLV 9506 or TEKNOSOLV 9515.

HEALTH AND SAFETY

Safety and precaution measures

See safety data sheet.



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Declaration of Performance No. 0004

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: $\geq 2,0 (1,5) \text{ N/mm}^2$
Dangerous substances	See safety data sheet

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