

TEKNOFLOOR PRIMER 5740 A

Epoxy Varnish

VARNISH TYPE	TEKNOFLOOR PRIMER 5740 A is a solvent-free, two-pack epoxy varnish specially for concrete floors in nuclear power plants.
USAGE	TEKNOFLOOR PRIMER 5740 A is used as a primer under epoxy coatings and flooring screeds. By adding sand it can be used for repairing concrete floors and rounding off corners. Sunlight will yellow the varnish and therefore it is not recommended to use as a top-coat.
SPECIAL PROPERTIES	TEKNOFLOOR PRIMER 5740 A hardens fast. The diluted varnish will penetrate into concrete's pores sealing it thus ensuring of the adhesion of the coating and screed onto substrate. It is also suitable for use for making so called levelling screed. TEKNOFLOOR PRIMER 5740 A fulfils the requirements stated in report STUK-YTO-TR 210 issued by STUK - Radiation and Nuclear Safety Authority, Finland.
APPROVALS	The product has CE approval for protection of concrete structures. Additional information: see page 3: "CE MARKING".

TECHNICAL DATA

Mixing ratio	Base (Comp. A): Hardener (Comp B): TEKNOFLOOR PRIMER HARDENER 5741 A	1 part by volume 1 part by volume
Pot life, +23 °C	Undiluted mixture: 20 min (poured out onto the floor) 10 min (kept in the vessel) Diluted mixture: 30 min (poured out onto the floor) 15 - 20 min (kept in the vessel)	
Solids	100 % by volume	
Total mass of solids	abt. 1100 g/l	
Volatile organic compound (VOC)	abt. 0 g/l	
Spreading rate	Depending on surface roughness and porosity. The standard rate for a steel-trowelled, blast-cleaned concrete floors is 3 - 6 m ² /l.	
Drying time at +23°C / 50% RH - touch dry (ISO 9117-5:2012) - fit for light traffic	after 4 h after 16 h	
Overvarnishable	The drying time is as previously mentioned when the temperature of the product as well as air and surface is +23°C.	

surface temperature	by itself or TEKNOFLOOR 5610 A	
	min.	max.*
+10°C	after 18 h	after 48 h
+23°C	after 4 h	after 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.

Thinner, clean up	TEKNOSOLV 9506 or TEKNOSOLV 9515
Finish	Full gloss
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

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

Additionally the temperature of the surface to be varnished and the varnish must be at least 3°C above the dew point of the ambient 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.

Varnishing

The priming is done "wet-on-wet" with varnish that is diluted by 20 - 30% with TEKNOSOLV 9506 or TEKNOSOLV 9515. TEKNOSOLV 9515 has a milder odour and therefore can be used in spaces where strong smells are to be avoided. The amount of thinner depends on the density of the concrete. Immediately after mixing pour the mixture as a streak onto the floor and apply e.g. with a short-piled mohair roller. Use lashings of varnish so that the entire surface is coated with a thick film therefore sealing the surface. 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 may have to be done several times. If the surface is left porous, when coating is applied air bubbles may rise up and leave holes on the surface.

The coating can be applied when the priming coat has dried for at least 4 h (+23°C). 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.

Levelling screed

TEKNOFLOOR PRIMER 5740 A is suitable for making so called levelling screed. The levelling screed is made as follows: into 9 l of TEKNOFLOOR PRIMER 5740 A mixture is added 8 - 10 l of 0,1 - 0,6 mm dry natural sand and stirred with a drilling machine. The levelling screed can be used for smoothing down uneven marks left by e.g. cutter. The levelling screed is applied by steel trowel.


THE LEVELLING SCREED IS NOT TO BE DILUTED!

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

	
0809	
Teknos Oy Takkatie 3, P.O. Box 107 FI-00371 Helsinki, Finland 13 Declaration of Performance No. 0013	
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	$B_{fl} - s1$
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.



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