



# TEKNOFLOOR 5610 A

## Epoxy Coating and Composition

<b>COATING TYPE</b>	TEKNOFLOOR 5610 A is a solvent-free, two-pack epoxy coating especially for concrete floors in nuclear power plants.
<b>USAGE</b>	TEKNOFLOOR 5610 A can be used as a coating or a composition. When it is used as a coating apply a 500 µm thick layer. When it is used as a composition add sand into the coating and apply a layer of about 2 - 4 mm thickness. The instructions for making the composition are shown in the table below.
<b>SPECIAL PROPERTIES</b>	TEKNOFLOOR 5610 A fulfils the requirements stated in report STUK-YTO-TR 210 issued by STUK - Radiation and Nuclear Safety Authority, Finland.
<b>APPROVALS</b>	The product has CE approval for protection of concrete structures. Additional information: see page 3: "CE MARKING".

**TECHNICAL DATA**

<b>Mixing ratio</b>	Base (Comp. A): Hardener (Comp B): TEKNOFLOOR HARDENER 5611 A	3 parts by volume 1 part by volume
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Layer thickness	coating 0,5 mm	composition 2 mm	composition 4 mm
TEKNOFLOOR 5610 A, Comp. A (base)	7,2 l	7,2 l	7,2 l
TEKNOFLOOR HARDENER 5611 A, Comp. B	2,4 l	2,4 l	2,4 l
natural sand, grain size 0.1 - 0.6 mm	-	8 l = abt. 11,2 kg	8 l = abt. 11,2 kg
natural sand, grain size 1 - 2 mm	-	-	4 l = 6 kg
<b>ready made mixture</b>	<b>9,6 l</b>	<b>13 - 14 l</b>	<b>15 - 16 l</b>

TEKNOFLOOR 5610 A can also be used for making highly filled screed for floor slopes. The instructions for making the screed are shown in the table below:	
TEKNOFLOOR 5610 A, Comp. A (base)	7,2 l
TEKNOFLOOR HARDENER 5611 A, Comp. B	2,4 l
thixotropic agent TEKNOFLOOR ADDITIVE 3444-01	80 g
natural sand, grain size 0.1 - 0.6 mm	8 l = abt. 11,2 kg
natural sand, grain size 0.5 - 1.2 mm	6 l = 9 kg
natural sand, grain size 1 - 2 mm	6 l = 9 kg
<b>ready made mixture</b>	<b>19 - 21 l</b>

<b>Pot life, +23 °C</b>	30 - 60 min (mixture poured out on the floor) 20 - 30 min (mixture kept in the vessel)
<b>Solids</b>	abt. 100 % by volume
<b>Total mass of solids</b>	abt. 1500 g/l
<b>Volatile organic compound (VOC)</b>	abt. 0 g/l

<b>Practical spreading rate</b>	Epoxy Coating, 0.5 mm - abt. 0.5 l/m <sup>2</sup> Epoxy Composition, 2 mm - abt. 2 l/m <sup>2</sup> Epoxy Composition, 4 mm - abt. 4 l/m <sup>2</sup>
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**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. *
<b>+10°C</b>	after 24 h	after 2 d
<b>+23°C</b>	after 16 h	after 1 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.

**Thinner, clean up** TEKNOSOLV 9506

**Finish** Gloss

**Colours** By agreement.

**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.

**Priming**

Prime the concrete surface with TEKNOFLOOR PRIMER 5740 A Epoxy Varnish. The detailed instructions for priming are to be found in the appropriate data sheet.

**Mixing of the components**

Mix the base and hardener with each other immediately before use. Stir quickly and thoroughly out to the sides and down to the bottom of the can with a slow-rotating (about 350 rpm) drilling machine equipped with a stirrer. Add the sand while the stirrer is running. Continue stirring till the mixture is homogenous. Inadequate stirring or incorrect mixing ratio results in imperfect curing and impaired film properties.

**Application method**

The coating can be applied when the priming coat has dried for at least 6 hours (+23°C). In case the priming is done more than 24 h (+23°C) ago the surface must be coarsened by rubbing down and cleaned before the coating is applied.

Apply the coating with dentated steel trowel and level off with a mohair roller.

Apply the composition with a long-handle, adjustable trowel and level off with a porcupine roller.

Pour the ready mixture immediately on the floor over the area that it according to the spreading rate should cover. If kept in the vessel, the mixture grows hot and unfit for use in 20 - 30 minutes.

The coating thickness of 0.5 mm will be achieved by using a dentated steel trowel. Spread out the composition with a long-handled special steel trowel, the slit of which can be adjusted to give the coat thickness desired. Smooth the composition with a plastic porcupine roller to delete air bubbles and seams. The smoothing down is done carefully several times across. Wear spike-soled shoes when stepping on the fresh coating.

Screed for floor slopes: Pour the screed on the floor over the area that it according to the spreading rate should cover. Spread out by a steel trowel with coarse pitch indentation. Finish by manual levelling. Recommended maximal coat thickness for the screed is 50 mm.

**Application conditions**

The surface to be treated 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.

**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. 0015	
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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