

TEKNOFLOOR AQUA 110F

Concrete paint and varnish

TEKNOFLOOR AQUA 110F concrete paint is a water-based, two-pack epoxy paint. It provides a glossy, hard, flexible and abrasion resistant film.



TEKNOFLOOR AQUA 110F is used on concrete floors. Other areas of use are walls in humid conditions and industrial areas, i.e. surfaces that require a durable, dense and easy-to-clean coating. The paint can also be applied to cement plaster, brick and hard construction board surfaces. Examples of applications are saunas, wash rooms, cellars etc.

TEKNOFLOOR AQUA 110F has a good abrasion resistance. It withstands water, petrol, oil, grease, even strong lye solutions, splashes of solvents and temporary action by weak acids. TEKNOFLOOR AQUA 110F does not impart taste or odour to foodstuffs. It dries fast, so as well the priming and top coating can be done in one working day. TEKNOFLOOR AQUA 110F is suitable for use in food preparation and packaging environments (Smithers Rapra, Certificate Number GC0068). Water-vapour permeability of TEKNOFLOOR AQUA 110F concrete paint fulfils the requirement of standard EN ISO 7783-1 class I, $sD < 5$ m.

TECHNICAL DATA

Certificates, approvals and classification	CE marking, M1 classification, Smithers Rapra
Recommended substrate	Concrete
Binder	Epoxy
Solids	45 ±2% by volume
Total mass of solids	Approx. 650 g/l
Volatile organic compound (VOC)	Approx. 20 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, surface-ground concrete floor: 1. application 4 - 6 m ² /l 2. application 7 - 9 m ² /l
Colours	Base paints 1, 2 and 3 and standard colours: TM 114, RAL 7038. Also available as a clear varnish.
Tinting system	Teknomix
Gloss (60°)	Gloss
Hardener	Comp. B: TEKNOFLOOR AQUA HARDENER 110H
Mixing ratio (A:B)	1:1 parts by volume
Pot life, +23°C	1h 30 min.
Thinner	Water.

Storage

The storage stability is shown on the label. Must be stored tightly closed and kept cool. Must not freeze.

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 surface grinding or etching. Surface grinding is good method to remove laitance. It is usually done on new industrial floors as wet grinding in connection with casting. 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.

Use etching if sanding is not possible. Etching is to be done with RENSA ETCHING etching liquid. Rinse the floor with water after etching and allow to dry.

OLD CONCRETE SURFACES: Uncoated, greasy floors are cleaned by emulsion wash. After the emulsion wash possible laitance is removed by diamond grinding or etching. Flaking old paint coats and laitance can be removed by diamond grinding.

TEKNOFLOOR AQUA 110F can be applied over other types of paint, provided that the old paint has good adhesion to the surface. If the floor will be attacked by water, e.g. in saunas and wash rooms, the surface should be roughened up by grinding. After this the floor is washed and rinsed.

TEKNOFLOOR-KOVAKITTI is used for partial or entire stopping up of the surface and filling of holes. Smooth down the stopped-up areas at the earliest after 8 hours (at +23°C).

Application method

Airless spraying, Brush, Roller

Application

MIXING OF THE COMPONENTS: Mix 1 part base to 1 part hardener by volume immediately before use and stir thoroughly. Stir the base before mixing so that it is homogenous. If the quantity of the mixture is more than 1 liter, use a slow-rotating hand drilling machine. Inadequate stirring or incorrect mixing ratio results in imperfect curing and impaired film properties. Ready paint is to be used within 1½ h from mixing. After this the mixture is unfit for use.

Apply two coats to new concrete floors. Dilute the paint for priming by adding 5 - 10% water. Apply the paint generously so that the porous concrete surface is sealed.

Apply by brush, short-piled mohair roller or airless spray. Suitable airless nozzle size 0.015 - 0.018".

Application conditions

The surface to be treated must be dry. 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 70%. When needed arrange effective ventilation or drying, so that during the application and at least for the first 12 hours of the drying process the relative air humidity will be below 70%.

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.

Thinning

The paint is diluted by water, which is added to the ready paint mixture. Solvents must not be used for diluting!

Drying time

+23°C / 50% RH

- dust free

1 h (ISO 9117-3:2010)

- fit for light traffic

4 h

- fully cured

7 d

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	
	min.	max.*
+10°C	12 h	7 d
+23°C	4 h	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.

Cleaning

Water and synthetic washing agent. Wash the equipment immediately after use.

HEALTH AND SAFETY

Safety and precaution measures

See safety data sheet.



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Declaration of Performance No. 0008

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EN 1504-2:2004

Surface protection products – Coating

Physical resistance (5.1)

Abrasion resistance	Requirement: Weight loss less than 3000 mg
Capillary absorption and permeability to water	Requirement: $w < 0,1 \text{ kg/m}^2 \times \sqrt{h}$
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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