

TEKNOPUR 340 FR

Fire-retardant elastomeric coating

TEKNOPUR 340 FR is a two-pack, solvent-free elastomeric coating. Coating is applied by spraying. TEKNOPUR 340 FR is based on pure polyurea.

Used as waterproofing and improving of physical resistance for roofs and concrete structures on objects which require a fire resistance rated coating.

TEKNOPUR 340 FR withstands impacts and constant immersion in water. It will cure also in -20°C temperature. The coating is fire-proofed with effective, halogen-free fire retardants. The coating fulfills the Nordic requirements of external fire exposure to roofs according to CEN TS 1187 Test 2 on certain flammable substrates and on all non-flammable substrates. Fire resistance class Cfl-s1 for floorings. The coating is usually applied to 2 - 5 mm thickness.

Product has CE approval for protection of concrete structures.

TECHNICAL DATA			
Certificates, approvals and classification	CE marking		
Recommended substrate	Bitumen, Concrete, Geotextile, GRP (glass reinforced polyester), Plywood, Steel, Wood		
Binder	Polyurea		
Solids	Approx. 100% by volume		
Total mass of solids	Approx. 1190 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.		
	covered by this Technical Da	ita Sheet.	
Theoretical spreading rate	Dry film (µm)	Wet film (μm)	Theoretical spreading rate (m²/l)
Theoretical spreading rate	Dry film (μm) 2000	Wet film (μm) 2000	Theoretical spreading rate (m²/l) 0.5
Theoretical spreading rate	Dry film (μm) 2000 3000	Wet film (μm) 2000 3000	Theoretical spreading rate (m²/l) 0.5 0.3
Theoretical spreading rate	Covered by this rechnical Data Dry film (μm) 2000 3000 5000	Wet film (μm) 2000 3000 5000	Comparison Comparison <thcomparison< th=""> Comparison Comparis</thcomparison<>
Theoretical spreading rate Practical spreading rate	Covered by this Technical Data	Wet film (μm) 2000 3000 5000 pplication technique, surfa	Theoretical spreading rate (m²/l) 0.5 0.3 0.2 ace conditions, overspray,
Theoretical spreading rate Practical spreading rate	Dry film (µm) 2000 3000 3000 5000 The values depend on the apetc. Black Dark grey ~RAL 7031	Wet film (µm) 2000 3000 5000 pplication technique, surfa	Theoretical spreading rate (m²/l) 0.5 0.3 0.2 ace conditions, overspray,
Theoretical spreading rate Practical spreading rate Colours	Covered by this Technical Data Dry film (µm) 2000 3000 5000 The values depend on the ap etc. Black, Dark grey, ~RAL 7031 Gloss	Wet film (µm) 2000 3000 5000 pplication technique, surfa	Theoretical spreading rate (m²/l)0.50.30.2ace conditions, overspray, s by agreement.
Theoretical spreading rate Practical spreading rate Colours Gloss (60°)	Covered by this Technical Data Dry film (µm) 2000 3000 5000 The values depend on the ap etc. Black, Dark grey, ~RAL 7031 Gloss	Wet film (µm) 2000 3000 5000 Deplication technique, surfa	Theoretical spreading rate (m²/l)0.50.30.2ace conditions, overspray,s by agreement.





Mixing ratio (A:B)	1:1 parts by volume
Gel time	Approx. 5 seconds
Storage	The storage stability is shown on the label. Store indoors in a cool and dry place and in a tightly closed can.
	The hardener reacts with air humidity. Opened can is to be carefully closed after the use and it is recommended to be used within 3 days from opening. Barrels are to be equipped with desiccant tubes.

DIRECTION FOR USE

Surface preparation

Remove from the surfaces any contaminants that might be detrimental to surface preparation and application. Remove also water-soluble salts by using appropriate methods. The surfaces are prepared according to the different materials as follows:

STEEL SURFACES: Remove mill scale and rust by blast cleaning to preparation grade Sa 2½ (standard ISO 8501-1). The profile of the blast-cleaned surface must be at least coarse (reference comparator "G"). See standard ISO 8503-2 (G).

BITUMEN SURFACES: Remove from the surfaces any contaminants (e.g. grease and salts) that might be detrimental to painting. Surfaces to be painted must be dry and clean. Damaged parts are pretreated in accordance with the requirements placed by the substrate and the maintenance painting.

CONCRETE SURFACES: The concrete must be at least 4 weeks old and wellhardened so that all moisture from casting is bound and the surface dry. The moisture of the concrete must nor exceed 97 % as relative humidity or 4% by weight (by 45 / BLY 7).

Dense laitance is to be removed from the concrete by shot-blasting, sanding or by sand blasting. 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 PAINTED SURFACES SUITABLE FOR OVERCOATING: Any impurities that might be detrimental to the application of paint (e.g. grease and salts) are removed. The surfaces must be dry and clean. Old, painted surfaces that have exceeded the maximum overcoating time are to be roughened as well. Damaged parts are prepared in accordance with the requirements of the substrate and the maintenance coating.



	GRP (Glasfiber Reinforced Plastic) COMPOSITE: Pretreat the surface using mechanical abrasive sanding P60 - P80. Remove dust. Due to varying nature of composites adhesion test is always recommended before extensive using.
	The place and time of the preparation are to be chosen so that the prepared surface will not get dirty or damp before the subsequent treatment.
	More detailed instructions available in separate system descriptions.
	Additional instructive information for surface preparation can be found in standards EN ISO 12944-4 and ISO 8501-2.
Priming	STEEL SURFACES: As a primer can be used TEKNODUR PRIMER 8-00 solvent- borne polyurethane paint or TEKNOMASTIC 80 PRIMER epoxy primer. The manufacturer should be contacted to check the suitability of other primers.
	BITUMEN SURFACES: Priming varnishing is done with TEKNOPUR SEALER 100-00 moisture-curing polyurethane varnish.
	CONCRETE SURFACES: The priming is done with TEKNOFLOOR PRIMER 310F or TEKNOFLOOR PRIMER 306F epoxy varnishes according to the instructions given in the Data Sheet. The priming is also possible to be done with TEKNOPUR
Application method	Hot twin feed-spraying
	Product is applied by hot twin-feed spray, e.g. Graco Reactor or PMC PHX-2. The components are mixed in the pistol (e.g. Graco Fusion AP or PMC AP-2). The mixing chamber and nozzle are chosen according to the object to be painted. Recommended spraying pressure is 150-160 bar.

Application

For two component application the components must be kept at a temperature of +20 - +25° C before use so that they are fluid enough for the feed pumps. To ensure that the product is uniform the base needs to be stirred thoroughly before use. Recommended filter size for base part is 60 mesh. The ratio of the dosage pump must be 1 : 1. The heating shall be adjusted so that the temperature of the components is +75 - +80°C. The hoses are heated to the same temperature. Temperature of the mixture in the nozzle must be at least +75 °C.

FEKNOS

The film thickness is controlled from reference plate by dry film gauge. The maximum recommended amount to be applied in one application is 2 mm. Thicker films are applied in phases so that the film is left to cool down between layers.

Vertical surfaces:

On vertical surfaces the required thickness of paint layer is builded by spraying several bonded layers, in which case the coating underneath has time to harden to drip-free.

The mixing ratio is ensured by controlling the pressure on the feed pumps and consumption of the components and also by measuring the hardness of the coating (Shore A, ISO 868).

Directions given by the manufacturer of the twin-feed spray are to be followed when working.

The surface to be treated must be dry. During the application and drying period the temperature of the ambient air and the surface shall be above -10°C and the relative air humidity below 90%. The temperature of the surface to be treated must be at least +3°C above the dew point of the ambient air.

+23°C / 50% RH Approx. 15 sec Approx. 40 sec Approx. 1 d

curface tomporature	by itself	
surface temperature	min.	max.
+10°C	2 min	24 h
+23°C	-	24 h

Cleaning

Drying time

- touch dry

- fully cured

Overcoatable

- fit for light traffic

HEALTH AND SAFETY

Application conditions

Safety and precaution measures

TEKNOCLEAN 6496, TEKNOCLEAN 6481-00.

See safety data sheet.



	CE	
	0809	
Teknos Oy, Takkatie 3, P.C). Box 107, FI-00371 Helsinki, Finland	
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Declaration o	f Performance No. 0036	
0809-CPR-1063		
EN 1504-2:2004		
Surface prote	ection products – Coating	
Physic	cal resistance (5.1)	
Chemi	cal resistance (6.1)	
Mois	ture control (2.2)	
Abrasion resistance	Requirement: Weight loss less than 3000 mg	
Capillary absorption and permeability to water	Requirement: w < 0.1 kg/m ² x √h	
Resistance to severe chemical attack	Requirement: Reduction in hardness of less than 50 %	
Impact resistance	Class III: ≥ 20 Nm	
Adhesion strength by pull-off test	Requirement: Crack-bridging system with trafficking: ≥ 1.5 (1.0)	
	N/mm ²	
Crack bridging ability	Class A5: Width of the crack bridged > 2.5 mm, -10 °C	
Reaction to fire	C _{f/} - s1	
Compressive strength	Class II: ≥ 50 N/mm ² (trafficking with steel wheels)	
Water vapour permeability	Class I, sd < 5 m	
Dangerous substances	See safety data sheet	

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