TEKNOFLOOR 660F

Polyurethane coating

TEKNOFLOOR 660F is a solvent-free, two-component polyurethane coating.

Used on industrial floors where elasticity and good resistance to mechanical abrasion is required. The coating has very good adhesion properties and elasticity, and therefore it is suitable also on e.g. asphalt surfaces.

The coating withstands water, chemicals, oil, grease and petrol. It does not resist strong acids nor continuous attacks by organic acids or strong solvents. The abrasion resistance of the coating is very good. When good colour and gloss retention is required the coating can be overcoated with polyurethane top coats of the TEKNODUR 0100 series. The coating becomes level by itself on even surfaces.

Properties of a 2 mm screed:
- Tensile strain at break: 90% (ISO 527-2)
- Tensile strength: 8.8 MPa (ISO 527-2)
- Crack bridging ability: 1.7 mm (EN 1062-7, method A)
- Compressive strain at 50% compression: 50 MPa (ISO 604)

TECHNICAL DATA

Certificates, approvals and classification	CE marking, M1 classification
Recommended substrate	Concrete
Binder	Polyurethane
Solids	Approx. 100% by volume
Total mass of solids	Approx. 1400 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	0.5 - 2.0 m²/l depending on the film thickness.
Film thickness	0.5 - 2.0 mm
Colours	TM-114 NOTE! Sunlight will change the colour and glossiness of the coating in the course of time.
Gloss (60°)	Full gloss
Hardener	Comp. B: TEKNOFLOOR HARDENER 660H
Mixing ratio (A:B)	4:1 parts by volume

Pot life	30 - 60 min (mixture poured out on the floor) 10 - 15 min (mixture kept in the vessel)
Thinner	Not to be diluted.
Storage	The storage stability is shown on the label. Must be stored tightly closed and kept cool.

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. OLD ASPHALT FLOOR: Wash the surface carefully with e.g. high pressure machine or with brushing machine. The asphalt surface is not primed but is applied straight with TEKNOFLOOR 660F. If the asphalt's surface is very smooth, grind it slightly to achieve sufficient adhesion 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.
Priming	The priming is done with TEKNOFLOOR PRIMER 310F Epoxy Varnish. For mohair roller application the varnish is diluted about 30% with TEKNOSOLV 9515 or TEKNOSOLV 9506. The varnish consumption is approx. 0.2 - 0.3 l/m². If the concrete floor is very porous, the second coat can be applied with TEKNOFLOOR PRIMER 310F Epoxy Varnish according to the instructions for overcoating time given in the Data Sheet. TEKNOFLOOR PRIMER 306F-01 Epoxy Varnish can be used on fresh, 2 - 3 days old concrete surface according to the instructions given on Data Sheet.
Application method	Roller, Porcupine roller, Trowel
Application	MIXING OF THE COMPONENTS: First the base must be mixed until homogeneous. Pour the hardener to the base container and mix thoroughly for at least 2 min. Mixing by machine is recommended, for example a slow-rotating hand-drill equipped with a mixer. Inadequate stirring or incorrect mixing ratio results in imperfect curing and impaired film properties. Depending on the temperature the coating is done after 4 - 24 h from priming. The recommended coat thickness is achieved by a suitable indentation of the steel trowel. Smooth down with a short-haired roller. Spread the composition (over 1.0 mm) with an adjustable trowel, the slit of which can be adjusted to give the coat thickness required. If desired, the composition can after this be smoothed with a broad roller. Finish then with a porcupine roller to make sure that air bubbles are being removed. Clean, dry natural sand of granule size 0.1 - 0.6 mm can be added to the product, by volume: 1 part of sand and 1 part of coating mixture. This will however lead to changes in the properties of the coating, e.g. the elasticity will deteriorate. It is recommended that paint of the same batch is used for painting large uniform floors. If paint from different batches must be used, the application is to be planned so that the seams between batches are done to natural lines, i.e. sills and expansion joints.
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 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
- 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. 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 9521. Wash the equipment immediately after use.

HEALTH AND SAFETY

Safety and precaution measures	See safety data sheet.

CE	
0809	
Teknos Oy, Takkatie 3, P.O. Box 107, FI-00371 Helsinki, Finland. 13 Declaration of Performance No. 0007	
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 kg/m^2 x √h
Resistance to severe chemical attack	Requirement: Reduction in hardness of less than 50 %
Impact resistance	Class II: > 10 Nm
Adhesion strength by pull-off test	Requirement: Crack-bridging system with trafficking: ≥ 1.5 (1.0) N/mm^2
Dangerous substances	See safety data sheet

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