

TECHNICAL DATA SHEET

Staflor EP Finish

Universal epoxy floor coating.

Product description

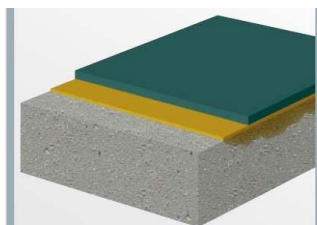
Staflor EP Finish is a reliable, two-component, solvent-free epoxy topcoat. It is ideal for roller coatings, self-smoothing coatings, self-smoothing mortars, and sand-blended non-slip coatings.

Fields of application

Staflor EP Finish provides mechanically and chemically resistant floor coverings that meet high aesthetic requirements and are used in industrial, warehouse, exhibition and retail spaces, as well as specialized facilities like paper mills, food processing plants, pharmaceutical plants, nuclear power plants, and facilities with heavy pedestrian, forklift and vehicle traffic.

Characteristics

- Universal application.
- Low odour.
- Film thicknesses 0.5 – 5 mm.



- Suitable for areas of heavy use and point loading.
- Resistant to dilute acids and alkaline solutions, salts, saline solutions, many solvents and fuels, fats, oils, detergents, surface active agents, disinfectants and foodstuffs.
- Liquid-proof.
- The hardened coating is safe for physiological contact.
- A non-slip surface can be achieved (by adding sand).

Product data

Colour shade

Approximately RAL 7032 or RAL 7035. Custom colours are available upon request. Inherent variations in raw materials may result in minor colour discrepancies. This effect can be more pronounced in solid, vibrant hues (such as yellow or orange) when quartz sand is used as backfill. Similar to all epoxy resins, prolonged exposure to UV radiation and weather conditions can cause the colour to change over time.

Packaging standard	Stafloor EP Finish (set): 25.0 kg net, including: Stafloor EP Finish Komp. A: 20 kg (main component). Stafloor EP Finish Komp. B: 5.0 kg (hardener).
Shelf life	12 months in a dry environment in originally sealed containers at temperatures between +3°C and +30°C. The expiration date of the warranty period of storage is indicated on the container labels.
Technical data	
Density (mixture)	$\cong 1.6 \text{ g/cm}^3$, DIN 53217.
Shore D hardness	64, DIN EN ISO 868 (after hardening for 7 days at +23 °C).
Compressive strength	52 N/mm ² , DIN EN ISO 604 (after hardening for 7 days at +23 °C).
Abrasion resistance	50 mg/1000 (load 1000 g, disc CS 10), ASTM D 4060, Taber Abraser. $\cong$
Abrasion	6 cm ³ /50 cm ² , DIN 52108.
Anti-slip properties	acc. ZH 1/571 and DIN 51130: R 11/V4 (aggregate filled coating). R 12/V6 (aggregate filled coating). Anti-slip classification will depend on the particle size of the scattered quartz sand.
Chemical resistance	See the chemical resistance sheet for Stafloor EP Finish.
Thermal stability	Without simultaneous chemical or mechanical load: Continuous exposure: up to +80°C, Short-term exposure: up to +100°C in a dry environment, up to +80°C in a humid environment.

Systems

Coating structure, material consumption	Structure	Material	Consumption
	Roller coating:	0.5 mm;	
	Self-smoothing coating:	0.5 – 1.5 mm;	
	Self-smoothing screed:	1.5 – 5 mm.	
	Primer:	Stafloor EP Primer	0.25 – 0.40 kg/m ² depending on the surface
	Dressing compound:	Quartz sand, particle size: 0.1 – 0.7 mm	0.80 – 1.00 kg/m ²
	Smoothing:	To smooth out excessive surface roughness and unevenness:	
		Stafloor EP Finish	1.5 – 3 kg/m ² depending on the surface
	Roller coating 0.5 mm:	Stafloor EP Finish	$\cong 0.80 \text{ kg/m}^2$ at 0.5 mm
	Self-smoothing coating 0.5 – 1.5 mm:	Stafloor EP Finish	$\cong 1.60 \text{ kg/m}^2$ at 1 mm
	Self-smoothing screed 1.5 – 5 mm:	Stafloor EP Finish + quartz sand, particle size: 0.1 - 0.4 mm at up to 2 mm + quartz sand, particle size: 0.1 – 0.7 mm at up to 5 mm	$\cong 2.00 \text{ kg/m}^2$ of mixture at 1 mm: Stafloor EP Finish 1.10 kg/m ² (1 part by weight) 0.90 kg/m ² quartz sand* (0.8 parts by weight)
	Non-slip coating 4 mm		
	Primer:	Stafloor EP Primer	0.25 – 0.40 kg/m ² depending on the surface
	Dressing compound:	Quartz sand, particle size: 0.1 – 0.7 mm	0.80 - 1.00 kg/m ²

Base layer: Stafloor EP Finish + quartz sand, particle size: 0.7 – 1.2 mm	$\cong 1.43 \text{ kg/m}^2$ of mixture at 1 mm: 1.30 kg/m ² Stafloor EP Finish (1 party by weight)	0.13 kg/m ² quartz sand* (0.1 part by weight)
Dressing compound:	Quartz sand for anti-slip properties R11 – particle size: 0.1 – 0.7 mm; Quartz sand for anti-slip properties R12 – particle size: 0.7 – 1.2 mm.	3 – 4 kg/m ²
Top coat:	Stafloor EP Finish	0.8 kg/m ²

* All values were determined using quartz sand at a material and substrate temperature of +20°C. Lower temperatures reduce flowability, air removal, and filling. Only calcined quartz sand is allowed.

Surface requirements

The surface must be sufficiently strong (compressive strength of at least 25 N/mm²). It must be smooth, finely roughened, firm, dry, and free of grease, oil, and any loose particles or substances that could impair adhesion. The choice of primer and leveling coat depends on the condition of the surface. The tensile strength must be at least 1.5 N/mm².

Compatibility with any existing coatings must be verified.

Dense surfaces composed of rigid materials, or those containing repair materials, water repellents, or other chemical additives, can potentially hinder coating adhesion if the substrate is not properly prepared. In such cases, test areas must be created.

Surface preparation

Insufficiently strong layers and contaminants should be removed mechanically, for example, by shot blasting or milling.

Defective areas, depressions, and craters are levelled using Stafloor products. Carefully level and coat surfaces to remove any dirt. Sweep away any loose sand.

Conditions of application

Application and curing temperature

Min. 10 °C, max. 30 °C (surface and ambient).

Humidity of surfaces

$\leq 4\%$ according to the carbide method.

The surface should be waterproofed to prevent water from seeping from the concrete surface onto the coating during operation.

Relative humidity

Max. 80 %.

Dew point

Ensure the surface temperature is at least 3°C above the dew point. Protect from condensation.

General instructions

Before application, during application and until hardening of liquid compositions, it is necessary to prevent contact with materials containing silicone and with other products that interfere with the hardening reaction.

Application instructions

Mixing ratio	Komp. A : Komp. B = 100 : 25.
Preparation of coating material	Material Preparation Prior to mixing, stir component A using a mixing machine. Then, add component B in the prescribed proportions and blend gently. To avoid splashing or even spilling, begin with a brief, low-speed stir using an electric mixer. Finally, increase the mixer speed to a maximum of 300 rpm for intensive mixing After about 2 minutes, add the prescribed amount of quartz sand. Continue mixing for at least 3 minutes, or until a homogeneous mixture is achieved. Pour the mixture into a clean container and stir briefly again as described above.
Application methods, tools	For technical reasons variations in colour may occur from batch to batch. For adjacent or overlapping areas only material from a single batch should be used. <u>Roller coating:</u> Apply with a lambswool roller without diluting. <u>Self-smoothing coating:</u> Apply Stafloor EP Finish with a smoothing or toothed trowel. De-aerate in two directions with a spiked roller. <u>Self-smoothing screed:</u> Add quartz sand to Stafloor EP Finish, apply with a smoothing or toothed trowel. De-aerate in two directions with a spiked roller. up to 2 mm DFT: quartz sand, particle size: 0.1 – 0.4 mm up to 5 mm DFT: quartz sand, particle size: 0.1 – 0.7 mm. <u>Non-slip coating:</u> Add quartz sand to Stafloor EP Finish, apply with a smoothing or toothed trowel. Broadcast an excess of quartz sand: ▪ anti-slip properties class R11: particle size 0.1 – 0.7 mm; ▪ anti-slip properties class R12: particle size 0.7 – 1.2 mm. After hardening, remove the residual quartz sand. <u>Top coat:</u> Before applying the top coat, lightly polish the sanded surface to remove any roughness. This creates a smoother substrate and reduces the amount of top coat required. Next, thoroughly clean the area with an industrial vacuum cleaner. Apply Stafloor EP Finish evenly with a rubber-backed squeegee and roll it out crosswise with a short-nap roller.

Equipment cleaner	Solvent P-4 Hardened material can only be removed mechanically.	
Pot life		
	Environment temperature	20°C
	Stafloor EP Finish	20 min
Hardening, operational pause, overcoating	Environment temperature	+20°C
	Walkable after	24 hours
	Overcoatable after	24 hours, max. 72 hours
	Full loading after	7 days

Important notice

Health and Safety Information

Exposure of skin to epoxy resins may result in allergic reactions.

It is imperative to avoid direct skin contact when handling epoxy resins. For detailed recommendations on selecting appropriate protective equipment, please refer to the following safety data sheets:

- “Instructions for the use of protective gloves for working with STATERM products”.

When using our products, always refer to the relevant physical, toxicological, ecological, and safety information provided in the Material Safety Data Sheet for the specific product. The relevant instructions given in the safety data sheets must be observed.

Value Base

All technical data stated in this Product Data Sheet are based on laboratory tests.

Actual measured data may vary due to circumstances beyond our control.

Legal Notes

The information provided above, based on our knowledge and experience, particularly the recommendations relating to the preparation, application, and end-use of STATERM products, is intended only for normal conditions, when properly stored, and used as intended. Due to the variety of materials, surfaces to be treated, and working conditions, compliance with the instructions contained herein, as well as verbal recommendations (which have no legal force), does not guarantee a positive result, and we assume no liability for such results, except in cases of intentional misrepresentation or gross negligence on our part. In such cases, the Buyer must prove that they have promptly provided STATERM with detailed written information about the project and received written confirmation from STATERM for the use of the products. The Buyer is obliged to verify the suitability of the products for the intended purpose. The manufacturer reserves the right to change product specifications. Third-party proprietary rights are respected. The accepted terms of sale and delivery remain valid. The latest version of the technical instructions applies and should be requested from us.