

PRODUCT INFORMATION

ESKANOL EF

PRODUCT DESCRIPTION

ESKANOL EF is a solvent-free, coloured and pre-filled coating material based on a two-component epoxy resin. **ESKANOL EF** is capable of bridging cracks up to 0.5 mm in accordance with DIBt (German Institute for Construction Technology) guidelines.

COATING LAYERS CONSUMPTION

ESKANOL EF consists of the two-component primer **ESKANOL EF PRIMER** and the two-component coating **ESKANOL EF**. Depending on the application, the overall dry film thickness is > 2.1 – 3.5 mm.

FIELDS OF APPLICATION

ESKANOL EF is used as an inner liner for industrial and commercial equipment with very high chemical and mechanical stress. Main fields of applications include electroplating plants, solvent storages, paint manufacturing plants and other chemical plants. The outdoor use is also possible, but the conditions need to be examined carefully and the suitability needs to be approved in advance. A slip-proof coating, fulfilling the requirements of the relevant professional association can be formed with the use of aggregates. The product is also suitable for use in continuously wet areas.

APPROVALS

ESKANOL EF is approved (**Z-59.12-46**) by the German Institute of Construction Technology (DIBt) for sumps, collection pits and surfaces made of concrete.

FEATURES

- Glossy surface
- Can be easily decontaminated
- Easy to clean
- High toughness and resilience properties
- High abrasion resistance
- Good chemical resistance against sea and waste water, alkalis, dilute acids, mineral oils, lubricants and fuels, as well as salt solutions to a variety of solvents
- Good crack-bridging properties. Can cover cracks up to 0.5 mm
- Can be applied on surfaces with a residual moisture of ≤10%

CHEMICAL RESISTANCE

Information on the chemical resistance properties is available upon request.

SUBSTRATE

Substrates are components made of concrete, screed or plaster. Components to be coated shall be designed and manufactured in accordance with EN 14879-1. In addition, DIN 1045 must also be observed.

SURFACE PRE-TREATMENT

Appropriate action shall be taken to prepare the concrete surfaces; dry and free of dust and free of contaminants such as oil or grease. The concrete shall have minimum tensile strength of 1.5 N/mm² and minimum compressive strength of

25 N/mm². The residual moisture in the concrete shall not exceed 4% when using **ESKANOL EF PRIMER**. At a residual moisture ≤ 10% **ESKANOL EF-450H PRIMER** must be used. A mechanical treatment by abrasive blasting, high-pressure water blasting or shot blasting is recommended. After milling, flame cleaning or bush hammering the concrete surface, an abrasive blasting is also required.

ENVIRONMENTAL CONDITIONS

The specified environmental conditions must be observed during surface preparation and brick lining and be tested and recorded according EN 14879-3.

Environmental Conditions	Value
Relative Humidity	≤ 80%
Application Temperature	+10°C up to +30°C
Dew Point Distance	min. 3K

APPLICATION

The execution of the coating work is only permitted, if the requirements of „Surface Pre-treatment“ and „Environmental Conditions“ are met.

ESKANOL EF is poured onto the properly prepared substrate and evenly spread onto the ground with a grout spreader - preferably with a triangular notched one - or with a trowel. If necessary, the coating can be vented with a spiked roller. In case of a faulty texture on the substrate, the trapped air beneath the coating has to be vented.

For larger areas, make sure that the working times of the material are followed to minimize colour differences and application marks. The application should be performed at a constant or gradually decreasing temperature in order to avoid blistering due to the expansion of air in the substrate. Good ventilation after the application and throughout the course of curing has to be ensured. The surface must be protected from direct contact with water during the entire curing phase.

WORK TOOLS

The following tools are essential for the application:

- Stirrer (max. 300 r/min.)
- Measuring cup & Mixing vessels
- Grout spreader
- Smoothing trowel
- Miscellaneous (safety glasses, rubber gloves etc.)

MIXING RATIO

Add the whole quantity of **ESKANOL EF HARDENER** into the **ESKANOL EF SOLUTION** and stir the mixture with a low-speed agitator thoroughly (recommendation: twin shaft stirrers agitating in opposite directions).

Then add the **ESKANOL PO POWDER** with the specified mixing ratio and stir the mixture again. Make sure that all components are mixed thoroughly. It is important that stirring reaches the wall and bottom of the container as well, in order to achieve a uniform mixture. Then pour the mixture into another container and mix further. The final composition of the mixture must be uniform and free of flow marks prior to application.

ESKANOL EF

Primer for surfaces with residual moisture of < 4%:

ESKANOL EF PRIMER	Parts by Weight	Parts by Volume
ESKANOL EF PRIMER	100	2.00
ESKANOL EF HARDENER	55	1.20

Primer for surfaces with residual moisture of $\geq 4\%$ and $\leq 10\%$:

ESKANOL EF-450H PRIMER	Parts by Weight	Parts by Volume
ESKANOL EF PRIMER	100	2.00
ESKANOL E-450H	60	1.20

Coating	Parts by Weight	Parts by Volume
ESKANOL EF SOLUTION	100	2.00
ESKANOL EF HARDENER	55	1.20
ESKANOL PO POWDER	230	3.00

CONSUMPTION

Product	Thickness [mm]	Coverage [g/m ²]
ESKANOL EF PRIMER	ca. 0.20	ca. 300
ESKANOL EF-450H PRIMER	ca. 0.20	ca. 300
ESKANOL EF	ca. 2.10	ca. 3200

POT LIFE / WORKING TIME [min]

Product	20°C
ESKANOL EF	ca. 60 min

RECOAT TIME (20°C)

Product	Min. [h]	Max. [h]
ESKANOL EF PRIMER	ca. 6 -10	ca. 24
ESKANOL EF	ca. 6 -10	ca. 24

CURING (at 50% relative humidity)

Product	Time	Curing
ESKANOL EF	ca. 12 h	Accessible
ESKANOL EF	ca. 24 h	Chemical load
ESKANOL EF PRIMER	ca. 3 h	Accessible
ESKANOL EF-450H PRIMER	ca. 3 h	Accessible

CLEANING

Clean all equipment with **ESKANOL CLEANER** immediately after use.

SAFETY MEASURES

The material safety data sheets of the individual components, the safety instructions on the packing (label) as well as the legal requirements for handling hazardous materials must be observed.

PACKING UNITS

The products are supplied in the following standard package sizes:

Produkt	Gebinde	Artikel Nr.
ESKANOL EF-450H	15 kg	10026
ESKANOL EF-450H	200 kg	10025
ESKANOL EF HARDENER	15 kg	10024
ESKANOL EF HARDENER	200 kg	10023
ESKANOL EF SOLUTION	25 kg	10019
ESKANOL EF SOLUTION RAL	25 kg	10020
ESKANOL EF PRIMER	25 kg	10011
ESKANOL EF PRIMER	200 kg	10010
ESKANOL PO POWDER	25 kg	10391
ESKANOL CLEANER	14 kg	10002
ESKANOL CLEANER	155 kg	10000

STORAGE

The products must be stored in a cool and dry place, away from direct sunlight. At the specified storage temperatures a shelf life of the products is given of at least for the following periods:

Product	Temperature	Shelf Life
ESKANOL EF-450H	5 - 20°C	12 Months
ESKANOL EF HARDENER	5 - 20°C	12 Months
ESKANOL EF SOLUTION	5 - 20°C	12 Months
ESKANOL PO POWDER	-	24 Months
ESKANOL CLEANER	5 - 25°C	60 Months

If the storage time is exceeded, the materials must be tested before use. Higher storage and transport temperatures will reduce the shelf life. The containers must be kept tightly closed. Liquid products must be stored frost-proof. In addition, the DIN 7716 must be observed.

ESKANOL EF

Technical Data	Standard	Unit	Value
Density	DIN EN ISO 2811 (ASTM D1475)	g/cm ³	1.50
Compressive Strength	DIN EN ISO 604 (ASTM D695)	N/mm ²	120
Adhesion Strength	DIN EN ISO 4624 (ASTM D4541)	N/mm ²	> Concrete break
Colour	-	-	RAL 7032. Further colours on request
Solid Content	ISO 23811 / DIN EN ISO 3251	%	100
Viscosity	DIN EN ISO 3219 / DIN EN ISO 489	mPa·s	ESKANOL EF SOLUTION: 580 ESKANOL EF HARDENER: 750 ESKANOL EF-450H: 1830
Max. Operating Temperature Liquids	-	°C	+60
Short-term Operating Temperature Liquids	-	°C	+80

Note: The indicated temperatures are dependent on the present load and may vary

Information given in the fact sheet above corresponds to the current knowledge available to us regarding our products at the time of its drafting and is intended as a guideline for informational purposes. However, because of the multiple possibilities regarding possible applications, processing and on site conditions, any information given in the fact sheet above is not legally binding, in particular, without being limited to, such information shall not be interpreted as a warranty of merchantability or of fitness for a particular purpose. Customer therefore is advised to conduct its own testing or make an inquiry with our technical department before ordering. We reserve the right to change the product at any time, in particular, without being limited to, minor changes because of advancements in technology. If by way of exception, the information given in the fact sheet above is incorporated by reference into any contract concluded with us under German Law, such information, shall only be interpreted as determining the specific requirements of the contractual products as set out in § 434 BGB (German Civil Code) and shall not be interpreted as constituting a guarantee of condition.

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SKO Säureschutz GmbH	ESKANOL EF	Revision 1.09 - 28.05.2025
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