

PRODUCT INFORMATION

ESKANOL VE MORTAR

PRODUCT DESCRIPTION

ESKANOL VE MORTAR is a three-component, cold curing synthetic resin mortar based on vinyl ester resin with mineral fillers.

SYNTHETIC RESIN CONSUMPTION

The synthetic resin mortar **ESKANOL VE MORTAR** consists of the **ESKANOL VE SOLUTION**, the **ESKANOL M50 HARDENER** and the filler **ESKANOL PO POWDER**. For bedding foundation blocks the filler **STEWATHIX 100 / 500** is additionally required.

FIELDS OF APPLICATION

ESKANOL VE MORTAR is suitable as bedding and jointing mortar for tiles, bricks and fittings, especially for chemical loads of acids, solvents and oxidizing chemicals. Furthermore, **ESKANOL VE MORTAR** has a high temperature and a high mechanical stress resistance.

Main applications are tiling and brick linings of components in the chemical industry, waste water and process water treatment, pulp and paper industry and in pickling lines.

FEATURES

- Very high mechanical load capacity
- Very good chemical resistance, especially against oxidizing acids and organic compounds
- Short curing time

CHEMICAL RESISTANCE

Information on the chemical resistance properties is available upon request.

SUBSTRATE

Components shall be designed and manufactured in accordance with EN 14879-1. Before start of brick lining work, the suitability of the surface preparation measures according EN 14879-1 must be checked and recorded.

SURFACE PRE-TREATMENT

Steel and concrete surfaces, rubber sheets and other sealing layers (except on VE and UP based layers) must be primed with a suitable primer before application. The primer must be sanded in a fresh state after the final coat. Unevenness should be compensated in the ground.

C-STEEL

All contaminants, including non-visible detectable contaminants, must be removed in accordance with DIN TR 55684 and EN ISO 8502.

Non-alloyed steel surfaces shall be abrasive blasted to "Near White Metal" in accordance with EN ISO 12944-4. A surface preparation degree of SA 2½ (SSPC-SP 10; NACE No. 2) as specified in EN ISO 8501-1 and a "medium (G)" roughness degree as specified in EN ISO 8503-2 must be achieved. The primer must be applied immediately after the blasting.

CONCRETE

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. The residual moisture content must not exceed 4%.

ENVIRONMENTAL CONDITIONS

The specified environmental conditions must be observed during surface preparation and brick lining and be tested and recorded according EN 14879-6.

Environmental Conditions	Value
Relative Humidity	≤ 85%
Surface Temperature	≥ +10°C up to +35°C
Application Temperature	+10°C up to +30°C
Dew Point Distance	min. 3K

APPLICATION

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

Sealing layers, except UP or VE based surfaces, shall be primed with VE primer before mortar application. **ESKANOL VE MORTAR** is applied with a trowel onto various substrates like primer applied substrates, synthetic resin coated substrates, rubber lined or ceramic substrates. The bricks or tiles have to be bedded as far as possible without cavities, either filled-joint or hollow-joint. For the protection of rubber linings usually a thin layer of mortar is trowelled in advance to prevent mechanical damages.

WORK TOOLS

The following tools are essential for the application:

- Stirrer (max. 300 r/min.)
- Measuring cup & Mixing vessels
- Flat / wide brush
- Mortar trowel
- Grouting tool
- Miscellaneous (safety glasses, rubber gloves etc.)

MIXING RATIO

Pour **ESKANOL VE SOLUTION** in a mixing vessel and add certain amount of **ESKANOL M50 HARDENER** with the specified mixing ratios, then stir well. Add the **ESKANOL PO POWDER** with the specified mixing ratios and mix further. The components must be mixed thoroughly and intensively. It is important that stirring reaches the wall and bottom of the container as well, considering that mortar may deposit at those areas. Mix for at least three minutes and until a uniform mixture is achieved. As a primer, the resin-hardener mixture with the specified mixing ratio (**ESKANOL VE SOLUTION + ESKANOL M50 HARDENER**) is used without adding the filler **ESKANOL PO POWDER** and with broadcasting quartz sand (0.7 - 1.2) while still wet.

Product	Parts by Weight	Parts by Volume
ESKANOL VE SOLUTION	100	3.00
ESKANOL M50 HARDENER	2	0.06
ESKANOL PO POWDER	365	7.30

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Mixing Ratio for bedding foundation blocks

Pour **ESKANOL VE SOLUTION** in a mixing vessel and add certain amount of **ESKANOL M50 HARDENER** with the specified mixing ratios, then stir well. Add **STEWATHIX 100 / 500** with the specified mixing ratios and mix further.

Add the **ESKANOL PO POWDER** and mix further for the required stiffness. The components must be mixed thoroughly and intensively. It is important that stirring reaches the wall and bottom of the container as well, considering that mortar may deposit at those areas. Mix for at least three minutes and until a uniform mixture is achieved. As a primer, the resin-hardener mixture with the specified mixing ratio (**ESKANOL VE SOLUTION + ESKANOL M50 HARDENER**) is used without adding the filler **ESKANOL PO POWDER** and with broadcasting quartz sand (0.7 - 1.2) while still wet.

Product	Parts by Weight	Parts by Volume
ESKANOL VE SOLUTION	100	3.00
ESKANOL M50 HARDENER	2	0.06
STEWATHIX 100	-	3.00
ESKANOL PO POWDER	various	> 4.00

CONSUMPTION

Bedding and jointing (Bed Joint 5 mm / Cross Joint 5-7 mm)

Material	Sizes [mm]	Coverage [kg/m ²]
Tiles	240 x 115 x 20	ca. 14
Tiles	240 x 115 x 40	ca. 18
Bricks	240 x 115 x 65	ca. 22
Bricks	240 x 115 x 80	ca. 24

POT LIFE / WORKING TIME [min]

Product	15°C	20°C	30°C
ESKANOL VE MORTAR	ca. 40	ca. 30	ca. 20

CURING (20°C)

Load Capacity	Time
Accessible	ca. 4 h

CLEANING

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

TESTING

The brick lining work shall be assessed according EN 14879-6 by visual inspection without magnifying lens. There shall be no imperfections (e.g. gaps, voids, unevenness, cracks or mechanical damages), which could impair the protective effect of the tile / brick lining.

REPAIR

The defective areas have to be removed with suitable tools and have to be renewed again. Care has to be taken that no

damages to the primer and / or sealing layers will occur. Optionally they also have to be renewed. Where post jointing is required, the min. joint depth must be 5 mm. When replacing multi-layered brick linings a stair-like outbreak has to be ensured.

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:

Product	Size	Article No.
ESKANOL VE SOLUTION	25 kg	10067
ESKANOL VE SOLUTION	205 kg	10066
ESKANOL M50 HARDENER	1 kg	10098
ESKANOL M50 HARDENER	5 kg	10097
ESKANOL M50 HARDENER	10 kg	10096
ESKANOL M50 HARDENER	25 kg	10095
ESKANOL PO POWDER	25 kg	10391
STEWATHIX 100	10 kg	10376
STEWATHIX 100	1,8 kg	10377
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 PO POWDER	-	24 Months
ESKANOL CLEANER	5 - 25°C	60 Months
ESKANOL M50 HARDENER	5 - 20°C	6 Months
ESKANOL VE SOLUTION	5 - 20°C	6 Months
STEWATHIX 100	-	24 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.

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Technical Data	Standard	Unit	Value
Density	DIN EN ISO 2811 (ASTM D1475)	g/cm ³	1.95
Compressive Strength	DIN EN ISO 604 (ASTM D695)	N/mm ²	85
Adhesion Strength	DIN EN ISO 4624	N/mm ²	≥ 2.5
Coefficient of Thermal Expansion	DIN 53752 (ASTM C531)	1/K	35 x 10 ⁻⁶
Max. Operating Temperature Liquids	-	°C	+120

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

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