



# ELAPRO 1k-SIL

## TD122 Processing Instructions

### Quick guide

- Processing of the substrate and the material
- Assess the need for an adhesive primer (see TD123)
- Apply a base coat of ELAPRO 1k-SIL
- Insert ELAPRO Vlies wet-on-wet
- Apply a covering layer of ELAPRO 1k-SIL wet-on-wet

### Processing-relevant data

Relative humidity <sup>1</sup>	25 to 100%
Processing temperature	0 to +40°C
Substrate temperature <sup>1</sup>	0 to +60°C
	Min. 3°C above the dew point
Residual substrate moisture	Dry to slightly damp
Consumption <sup>2</sup>	Min. 3.3 kg/m <sup>2</sup>
Processing time <sup>3,4</sup>	90 min.
Rainproof <sup>4</sup>	After 1 hour (20°C/50% RH)
Walkable <sup>4</sup>	After 24 hours (20°C/50% RH)
Crosslinking complete <sup>4</sup>	After 72 hours (20°C/50% RH)
Recoatible / Interruption of work <sup>5</sup>	Up to 24 hours, clean or roughen afterwards

<sup>1</sup>During processing, the surface temperature must be 3°C above the dew point. At lower temperatures - generally above 85% RH - a separating film of condensate can form on the surface to be coated. Relative humidities of up to 100% are permitted in the hours after processing.

<sup>2</sup>On highly absorbent or uneven substrates, the total consumption may exceed 3.3 kg/m<sup>2</sup>.

<sup>3</sup>Avoid direct sunlight. The container must be sealed airtight during extended breaks from work.

<sup>4</sup>Measurements made at 20°C and a relative humidity of 50%. The values specified are affected by weather conditions like humidity, temperature and wind. The temperature and humidity must permit the coating to harden in the hours after application.

<sup>5</sup>The fully hardened 1k-SIL surface should be cleaned generously with ELAPRO Cleaner or roughened.

### Hardening times



### Preparing the substrate

The surface must be clean, dry, smooth, level and stable. Dust, oil, grease and other separating substances must be removed. Bubbles must be burst and levelled to form a stable surface. Concrete and cement substrates as well as tiled surfaces must be prepared by removing material. Grinding increases the surface and is therefore recommended to achieve better adhesion.

Application on residual damp mineral substrates is possible. We always recommend conducting an adhesive primer test, see "Adhesive primer test".

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### Processing information

Specialists and trained personnel must assess whether the substrate is appropriate and carry out subsequent preparatory works. Only in this way is lasting, sustainable waterproofing possible.

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Water exchange areas can have an adverse effect on the waterproofing and must be avoided. Insufficient slopes to the drain can also cause harmful algae growth, puddles and water retention.

Gaps and cavities up to 5 mm must be filled beyond the edges with ELAPRO 1k-SIL, then bridged with a section of ELAPRO Vlies and finally coated with a covering layer of ELAPRO 1k-SIL. Gaps and cavities larger than 5 mm must be filled with a suitable material (e.g. ELAPRO QuickRepair) and then filled flush with the surface and covered with a base coat of ELAPRO 1k-SIL. Lay a section of ELAPRO Vlies in the base coat while it is still liquid, and then coat it with a covering layer of ELAPRO 1k-SIL.

### Preparing the material

Before using ELAPRO 1k-SIL, stir it well but slowly to avoid adding air bubbles - stir down into the corners of the container. The product is thixotropic. The longer the material is stirred, the more it liquefies. When left to stand - both in the container and after application - it solidifies again. Ideally, apply the product with a roller (short-fibre roller, paintbrush, notched squeegee). ELAPRO 1k-SIL must not be diluted.

### Primer

A check must be conducted to assess whether an adhesive primer is necessary. ELAPRO 1k-SIL is compatible with the ELAPRO Primer KS and Primer UN adhesive primers. See document TD123 ELAPRO 1k-SIL Primer Recommendation for an overview of substrates for which an adhesive primer is required. We always recommend an adhesive primer test in the event of uncertainty. Please read the processing information at the end of this document on the adhesive primer test. If an adhesive primer is used, it must be stirred before processing and applied as a thin film with a solvent-resistant soft paint roller. After drying for roughly min. 15 minutes, it can be recoated with an ELAPRO liquid plastic. You can also apply liquid plastics later. If the surface becomes soiled in the meantime, it must be cleaned again. The adhesive primer does not have to be reapplied. The efficiency of the adhesion between the substrate and adhesive primer can also be influenced by external conditions like direct solar irradiation and heated substrates. Under the conditions described, we recommend double the consumption of the adhesive primer used.

### Primer recommendation\*

It is essential that the surface is cleaned. Grinding increases the surface and is therefore recommended to achieve better adhesion. Concrete and cement substrates as well as tiled surfaces must be prepared by removing material.

Substrate	Substrate preparation
Concrete and screed (used surfaces)	ELAPRO Primer UN
Concrete and plaster (details, connections)	Primer not necessary
Bitumen sheet, slated/sanded	Primer not necessary
Glass	Primer not necessary
Timber-based materials (glued laminated timber, OSB among others)	Primer not necessary
Wood (untreated)	Primer not necessary
Clinker brick	Primer not necessary
EPDM	ELAPRO Primer KS
EVA	ELAPRO Primer KS
FPO/TPO	ELAPRO Primer KS
GRP	ELAPRO Primer KS
PVC (sheets)	ELAPRO Primer KS
PVC (hard)	ELAPRO Primer KS
Aluminium	ELAPRO Primer UN
Stainless steel	ELAPRO Primer UN
Copper	ELAPRO Primer UN
Steel	ELAPRO Primer UN
Zinc	ELAPRO Primer UN
Other substrates	See TD123

\*We always recommend conducting an adhesive primer test, see "Adhesive primer test".

### Base coat

At least 2.0 kg ELAPRO 1k-SIL is applied per square metre of substrate as an even base coat.

### Non-woven inlay

Lay the non-woven material into the mass while it is still wet immediately after applying the base coat. The base coat must not have formed a skin. The non-woven material must be inserted without wrinkles, air bubbles and cavities. To do so, press it down with a dry roller, to ensure comprehensive saturation. When properly saturated, the non-woven material takes on a dark colour. Non-woven material layers must overlap at least 10 cm on foreign material and at least 5 cm on adjacent fleece. The material must always be applied to the same layer thickness between the overlapping ends of the non-woven material for lasting crosslinking. For detail work, we recommend our preformed inner and outer corners and pipe sleeves.

**Note on elevated requirements for waterproofing or fire protection:** Inserting the ELAPRO Vlies 110 creates a homogeneous

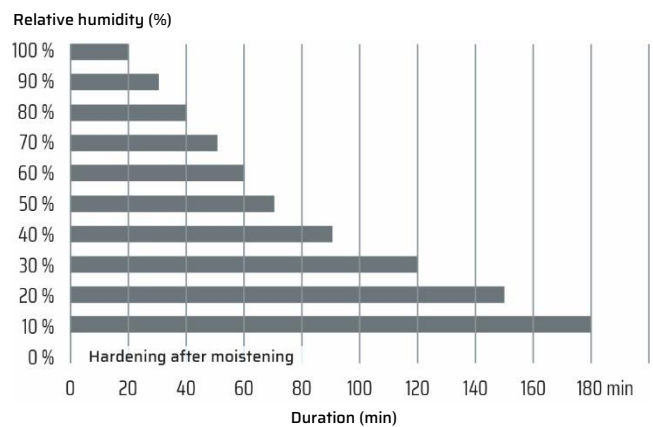
waterproofing layer thickness of 2.1 mm. For elevated waterproofing or fire protection requirements, ELAPRO Vlies 120 can be used with a higher material consumption to achieve a layer thickness of 2.4 mm.

### Covering layer

Apply at least 1.3 kg/m<sup>2</sup> of ELAPRO 1k-SIL wet-on-wet as an even covering layer on the ELAPRO Vlies. Do not leave any areas of non-woven material exposed. ELAPRO 1k-SIL must be applied 0.5 to max. 1.0 cm beyond the ends of the non-woven material.

**Note on top layers and wearing layers:** ELAPRO 1k-SIL is suitable as a long-term waterproofing for used surfaces (e.g. balconies, terraces, loggias and pergolas). For permanent mechanical loads due to frequent access or spot loads caused by table or chair legs, flexible liquid waterproofing is not suitable. For this application, an additional used and wearing layer (e.g. ELAPRO Topcoat) is required. As an alternative, the alkali-resistant ELAPRO 1k-SIL can be covered with tiles. To do so, fire-dried quartz sand (approx. 3.0 kg/m<sup>2</sup>) is laid across the full surface, grain-on-grain in an additional wet layer of ELAPRO 1k-SIL (approx. 0.3 kg/m<sup>2</sup>). The quartz sand improves the strong adhesion of the tiles. After hardening, the tile cement can be applied.

### Rainproofing (20°C)\*



\*Important! Values can deviate if weather conditions like humidity or temperature change during hardening.

### Adhesive primer test

An adhesive primer test is always recommended. Based on Swiss standard SIA 281/2, coat a prepared substrate test area of at least 30 x 30 cm with ELAPRO 1k-SIL and ELAPRO Vlies (following the same steps laid out in the processing instructions). Please leave a 10 cm strip at the edge of the non-woven material as a gripping surface. After fully hardening for 5 days, pull on the exposed gripping surface to check the adhesion. If the temperature during this time is less than 15°C, you must wait 7 days. The material can only be processed on the substrate tested if the adhesion is very strong. Depending on the substrate material and properties, the adhesive primer test should be performed directly with the respective ELAPRO Primer required (See TD123 ELAPRO 1k-SIL Primer Recommendation).

## Disposal

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### Product residues

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Liquid: AVV 08 04 10

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Hardened: AVV 08 04 10

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### Packaging

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Not fully empty: AVV 08 04 10

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Empty/drip-free: AVV 15 01 02

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Note: Product residues and packaging must be disposed of properly in compliance with the European List of Waste Materials (AVV/formerly EAK).

## Occupational safety

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We recommend that you wear protective glasses and gloves.

## Compatible system components

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- ELAPRO Topcoat
- ELAPRO Primer KS / UN
- ELAPRO Vlies 110 / 120 / Moulded non-woven material parts
- ELAPRO SFB
- ELAPRO Cleaner
- ELAPRO QuickDry

## General Information

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All information provided here serves only to describe the material and is based on tests and results achieved in practical use. As a result, no liability can be accepted for its accuracy or completeness. Advice is provided to the best of our knowledge and does not release users from testing by accredited specialists such as planners and experts. Colour deviations or changes do not affect the products' technical parameters. The times specified are reduced at higher ambient and surface temperatures and extended at lower ambient and surface temperatures. All data is subject to changes without notice. The data sheet shall cease to be valid 5 years after publication. The latest version must always be used. It is available in the download area on our website [www.elapro.de](http://www.elapro.de). The details and recommendations in this product information correspond to the current state of our knowledge and are provided to inform the buyer. They do not release the buyer from assessing the products for suitability and use on the respective substrate. The products described must only be processed as a system with the system components mentioned here. We guarantee flawless quality within the framework of our terms of delivery and payment.

## Safety instructions

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All safety instructions on the containers, the technical product information and the safety data sheets and relevant local, national and EU regulations must be complied with. Personal occupational health and safety must be observed.