

# LASTOFLEX-ST

One component, liquid-applied, silane-based, roof coating which cures with the humidity of atmosphere to form a strong, elastic and impermeable to water, membrane.

## PHYSICAL PROPERTIES AND ADVANTAGES

- Easy to apply by brush, roller or airless spray.
- Long-lasting waterproofing and protection.
- Highly resistant to stagnant water. Does not peel off.
- Forms a seamless membrane without joints which is 100% bonded to the substrate. Even when damaged, water does not spread to the entire surface of the substrate, and the membrane can easily be repaired locally.
- Excellent resistance to weather conditions : rain water, frost, UV rays.
- Excellent elastic properties even at very low temperature (-40 °C). Excellent crack-bridging properties.
- Excellent thermal resistance. The membrane does not turn soft or tacky at high temperatures (+80 °C).
- Excellent adhesion on several substrates without use of primer. Special primers are available to cover almost all type of substrates.
- Water vapour permeable. Does not cause moisture accumulation on the ceiling.
- Good resistance to chemicals and detergents.
- High reflection of solar energy (only in white colour) and significant reduction of the temperature inside the building during summer.
- Does not release any dangerous substances once fully cured.
- Zero chalking effect.
- Cost efficient.

## CLASSIFICATION ACCORDING TO ETAG 005

- Minimum expected working life : W3 (25 years).
- Climatic zone : S (Severe Climate).
- User Load : P4 (Special).
- Roof slopes : S1 to S4.
- Minimum surface temperature : TL4 (-30 °C).
- Maximum surface temperature : TH3 (+80 °C).
- Reaction to Fire (EN 13501-1) : Class E.

## TECHNICAL PROPERTIES

- Dynamic viscosity EN ISO 3219 (23 °C, shear rate 100 [1/s]) : 2350 mPa.s
- Density DIN EN ISO 2811-1 (21 °C) : 1,24 gr/cm<sup>3</sup>
- Temperature variations resistance : -40 to 90 °C.
- Surface membrane formation time (23 °C, 50% R.H.): 2,5 hours
- Elongation at break point (DIN 53504) : 350%
- Tensile strength (DIN 53504) : 2,20 N/mm<sup>2</sup>
- Hardness SHORE A (DIN 53505) : 55
- Water Vapour permeability (DIN EN 1931, 23 °C-0/75% R.H.) :  
12,7 gr/m<sup>2</sup>/day
- Impermeability to water (DIN EN 1928, 1m water column, 24h) : Watertight
- Adhesion on concrete (with primer) : > 2 N/mm<sup>2</sup>
- Accelerated Weathering Test, UV & water exposure, EOTA TR-010, Radiant exposure 1000 MJ/m<sup>2</sup>, 4000 hours :  
Passed, No significant changes
- Resistance against thermal ageing, EOTA TR-011, 200 days at 80 °C :  
Passed, No significant changes
- Fatigue resistance, EOTA TR-008, -10 °C, initial crack : 1 mm, change in crack width : 1 mm, Number of cycles : 1000 :  
No cracks

## APPLICATION FIELDS

It is generally used for surface waterproofing. Due to the high hydrophobic performance of the cured membrane, **LASTOFLEX-ST** is suitable for waterproofing surfaces with stagnant water, roofs, tanks, terraces, flowerbeds, roofs with polyurethane insulation foam, etc.

## APPLICATION INSTRUCTIONS

### Weathering conditions:

Rainy weather should be avoided.

### Preparation :

The application surface must be clean from loose particles, dust, oil, etc. **LASTOFLEX-ST** should generally be applied on dry and sound surfaces. Old coatings should be removed. The substrate should not be washed with water prior to the application of the coating. A moisture content of less than 5% is generally recommended for concrete surfaces. Joints and cracks should be sealed with **ELASTOSEAL-PU** joint sealant.

### Priming :

**LASTOFLEX-ST** can also be applied without the use of a primer. However, the use of **Primer VL** is recommended in order to improve the mechanical properties of the surface of the concrete. Wet substrates should generally be avoided. In special occasions of moist concrete, it is possible to use **Primer EP-W** as a moisture barrier and then apply the coating. For application on top

of bitumen-based coatings or bitumen felts, it is suggested to use **Primer VL 2K** in order to avoid the blistering of the substrate. For non-absorbent surfaces like ceramic tiles or metal substrates no primer is required.

**Application :**

**LASTOFLEX-ST** is applied by roll, brush or air-gun in 2-3 layers. For improved mechanical and crack-bridging properties, it is recommended to apply **LASTOFLEX-ST** together with **ELASTOTET GEOTEXTILE** (non-woven and needle-punched polyester geotextile of 120 gr/m<sup>2</sup>). The geotextile is applied on top of the freshly laid first coat of **LASTOFLEX-ST**, before the application of the second and the third layer. The use of **LASTOFLEX-ST** together with geotextile is highly recommended for sealing the areas of joints and cracks (on top of **ELASTOSEAL-PU**), as well as the corners between the floor and the wall or any other connection such as chimneys, bases of solar panels, etc. Furthermore, the use of **LASTOFLEX-ST** in combination with geotextiles is also recommended for waterproofing roofs with cementitious screeds which have the tendency to crack. Time interval between each coat is at least 3 h and not more than 48 h. When primer is applied, the first coat of **LASTOFLEX-ST** can be applied not earlier than 1 hour and not later than 48 hours from the application of the primer. The drying time is significantly affected by the environmental conditions (temperature and humidity). For application by airless spray, it is suggested to dilute the product with White Spirit up to 10%. **Never dilute the product with water.** The same solvent can be used for cleaning the tools or the equipment from the fresh coating. Once the material is cured, it can only be removed mechanically. **LASTOFLEX-ST** is not suitable for application as a directly exposed layer on swimming pools. **LASTOFLEX-ST** is 100% UV stable and colour stable and it can be applied on top of **LASTOFLEX-PU** in order to eliminate the chalking effect and to provide colour stability, especially in dark colours such as red, black, brown or blue. When **LASTOFLEX-ST** is wet, it can become slippery. To avoid this effect, the coating can be sprinkled on top with an appropriate particle size of quartz while it is still fresh.

**Consumption :**

A minimum consumption of 1,1-1,3 Lt/m<sup>2</sup> (1,3 – 1,6 kg/m<sup>2</sup>) is recommended. In any case the consumption depends on the roughness of the surface or the specifications of the application. Do not apply **LASTOFLEX-ST** more than 0,7 – 0,8 kg per coat as this could lead to severe shrinkage of the coat.

**Curing time:**

12 to 24 h, depending on environmental conditions.

**Colours :**

White as standard. Grey and red upon special order.

**Packaging :**

Lids of 0,7 lt, 3,6 lt, 18 lt.

**Shelf life :** At least 12 months in sealed containers, when stored in dry and cool areas. When opened, the product should be used all at once. The half-used pail will develop a cured layer of material on top during storage. If this cured layer is removed, the remaining liquid material can be used again.

**Warning to users**

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