BUILDING TRUST

PRODUCT DATA SHEET

# Sikalastic®-591

UV Resistant Elastomeric Waterproof Membrane

## DESCRIPTION

Sikalastic®-591 offers a cold applied, seamless,UV stable and foot trafficable membrane. It is a surface applied roof and wall finish with excellent waterproofing,elasticity, bond and long term durability characteristics. Sikalastic®-591 is decorative and provides an architectural finish.
Sikalastic®-591 can be applied onto a broad range of substrates. Good bond performance can be achieved onto sound cementitious screeds, renders and concrete.

## CHARACTERISTICS / ADVANTAGES

- Water based – safe to use and environmental friendly
- Can withstand foot traffic for inspection and maintenance
- Decorative and practical
- No discolouration, no yellowing
- UV stable
- Low VOC

## USES

- Flat roof
- External wall
- Metal roof
- Deck
- Canopies

## PRODUCT INFORMATION

| | | |
|---|---|---|
| **Chemical Base** | Polyurethane acrylic copolymer | |
| **Packaging** | 20 kg/pail | |
| **Shelf Life** | 12 months from the date of production | |
| **Storage Conditions** | Stored properly in undamaged and unopened original sealed packaging in the temperature range 5°C to 35°C . Protect from direct sunlight and frost. | |
| **Density** | 1.1 ± 0.1 kg/litre | |
| **Solid Content** | > 55 % by weight | |
| **Volatile Organic Compound (VOC) Content** | 21g/litre | USEPA Method 24 |

## TECHNICAL INFORMATION

| | | |
|---|---|---|
| **Tensile Strength** | Approx. 2.5Mpa | ASTM D412 |

| | | |
|---|---|---|
| **Elongation** | Approx. 300% | ASTM D412 |

## APPLICATION INFORMATION

| | |
|---|---|
| **Consumption** | Approx. 2kg/m² |
| **Ambient Air Temperature** | +5 °C min / +35 °C max |
| **Relative Air Humidity** | 80 % r.h. max |
| **Dew Point** | Beware of condensation, Surface temperature during application must be at least 3 °C above dew point. |
| **Substrate Temperature** | +5 °C min / +35 °C max |

**Applied Product Ready for Use**

| Substrate Temperature | Relative Humidity | Touch Dry | Rain Resistant | Fully Cured |
|---|---|---|---|---|
| +20 °C | 50 % | ~ 4 hours | ~ 10 hours | ~ 4 days |
| +30 °C | 50 % | ~ 2 hours | ~ 8 hours | ~ 2 days |

Note : Times are approximate and will be effected by changing ambient conditions particulary temperature and relative humidity. Low temperature and high relative humidity retard curing, while high temperature and low relative air humidity accelerate curing progression.

## BASIS OF PRODUCT DATA

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.

## USES

- Sikalastic®-591 can be applied on roofs subject to short ponding water.
- Recommended slope of 1 % should be provided to substrate. (Depending on Roof layout and availability of Drains and Gutters, minimum could be 0.5 % slope).
- Protect the applied material from rain until 24 hours to get good ponding water capability.
- Do not apply Sikalastic®-591 on substrates with rising moisture.
- Always apply during falling ambient and substrate temperature. If applied during rising temperatures “pin holing” may occur from rising air.
- Ensure that temperature does not drop below 15 °C and that relative humidity does not exceed 80 % until the Membrane has fully cured.
- Ensure that Sikalastic®-591 is totally dry and the surface is without pinholes before applying any topcoat.
- Do not allow temporary ponding to remain between coats on any horizontal surfaces or until the final coating has totally cured. Brush or mop surface water away during this time.
- In cold climatic zones, Sikalastic®-591 should not be applied on roofs subject to ponding water with subsequent periods of frost. Otherwise a slop of more than 3 % should be provided, or appropriate measures should be considered.
- Do not apply Sikalastic®-591 directly on insulation boards. Instead use a separation layer between insulation board and Sikalastic®-591.
- Sikalastic® Fleece -80/ Sika® Glass Fabric -55G can be used as total reinforcement or for partial reinforcements over dynamic cracks and joints.
- Do not over coat Sikalastic®-591 with tile, concrete or others. Sikalastic®-591 is an exposed system.

## ECOLOGY, HEALTH AND SAFETY

For information and advice on the safe handling, storage and disposal of chemical products, users shall refer to the most recent Material Safety Data Sheet (MSDS) containing physical, ecological, toxicological and other safety-related data.

## APPLICATION INSTRUCTIONS

### SUBSTRATE PREPARATION

**Cementitious Substrate:**

- New concrete should be cured for at least 28 days and should have a Pull off strength ≥ 1.5 N/mm².
- Cementitious or mineral based substrates must be prepared mechanically using abrasive blast cleaning or scarifying equipment to remove cement laitance and to achieve an open textured surface.
- Loose friable material and weak concrete must be completely removed and surface defects such as blowholes and voids must be fully exposed.
- Repairs to the substrate, filling of joints, blowholes/voids and surface levelling must be carried out using appropriate products from the Sikafloor®, SikaDur® and SikaGard® range of materials.
- High spots must be removed by e.g. grinding.
- Outgassing is a naturally occurring phenomenon of concrete that can produce pinholes in subsequentlyapplied coatings. The concrete must be carefully assessed for moisture content, air entrapment, and surface finish prior to any coating work. Installing the membrane either when the concrete temperature is falling or stable can reduce outgassing. It is generally beneficial, therefore, to apply the embedment coat in the late afternoon or evening.
- Prime the substrate and always use a reinforced sys-

tem.

### MIXING

Prior to application, stir Sikalastic®-591 thoroughly for 1 minute in order to achieve a homogeneous mixture. Over mixing must be avoided to minimise air entrainment.

### APPLICATION

- Prior the application of Sikalastic®-591, the priming coat has to be used and it must have cured tack-free.
- The primer coat is Sikalastic®-591 diluted with 3 parts of water and consumption is ~ 0.3 kg/m², or use Sikafloor®-156/Sikafloor®-161.
- For the Waiting Time / Overcoating please refer to the PDS of the appropriate primer. Damageable areas (door frame) have to be protected with an adhesive tape.
- Apply first coat of Sikalastic®-591 approximately 1.0 kg/m².
- Apply second coat of Sikalastic®-591 approximately 1.0 kg/m².
- Work only so far in advance that the material stays liquid.

### CLEANING OF TOOLS

Clean all tools and application equipment with water immediately after use. Hardened/cured material can only be removed mechanically.

## LOCAL RESTRICTIONS

Please note that as a result of specific local regulations the performance of this product may vary from country to country. Please consult the local Product Data Sheet for the exact description of the application fields.

## LEGAL NOTES

The information, and, in particular, the recommendations relating to the application and end-use of Sika products, are given in good faith based on Sika's current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance with Sika's recommendations. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or from any other advice offered. The user of the product must test the product's suitability for the intended application and purpose. Sika reserves the right to change the properties of its products. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the most recent issue of the local Product Data Sheet for the product concerned, copies of which will be supplied on request. It may be necessary to adapt the above disclaimer to specific local laws and regulations. Any changes to this disclaimer may only be implemented with permission of Sika® Corporate Legal in Baar.