



METHOD STATEMENT

Sikalastic® U-Coating

SEP, 2021 / VERSION 1.0 / SIKA VIETNAM

1 SYSTEM DESCRIPTION

Sikalastic® U-Coating is a 2-part, aliphatic polyurethane, fast drying top coat for roof waterproofing using for new and refurbishment project. Part of the SikaRoof® MTC-05/-08/-10 UV AP System and can be used to overcoat different 1- or 2-part aromatic polyurethane base coats.

1.1 CHARACTERISTICS / ADVANTAGES

- Excellent UV resistance (Solar Reflectance index: 108)
- Reducing energy consumption by UV reflectance
- Excellent weather & chalking resistance
- Low soiling, Easy to clean
- Non-yellowing
- Less base coat consumption required for the same performance compare to system without U-coating
- Good workability, Low viscosity, self-levelling
- Short tack free time and long pot life
- Cold applied - requires no heat or flame
- Seamless waterproofing membrane
- 12 months shelf life

1.2 REFERENCES

To ensure the correct application of Sikalastic® U-Coating, please refer to the most recent issue of the following documents:

- PDS (Product Data Sheet)
- MSDS (Material and Safety Data Sheet)

1.3 LIMITATIONS

- Do not apply Sikalastic® U-Coating on substrates with rising moisture.
- Sikalastic® U-Coating is not suitable for permanent water immersion.
- Product must be used in conjunction with a safe system of work. Ensure an adequate assessment of all site risks has been conducted prior to work commencing. Refer to the product safety datasheet for further guidance.
- When using Sikalastic® U-Coating for indoor applications, make sure the ventilation is good.
- Do not apply close to the air intake vent of running air conditioning unit. Turn off or isolate if necessary.
- The product can be applied by brush, roller. Work with a brush in difficult areas. Apply subsequent layers after the first layer has cured tack free.
- The product can be over coated with itself.
- The suitability of each system to receive foot traffic varies. For specific recommendations, please contact our technical service department.
- Sikalastic® U-Coating is not suitable as a waterproofing layer directly on concrete and cementitious substrate
- Applying on existing waterproofing membrane adhesion tests is required

2 SYSTEM INFORMATION

2.1 PRODUCTS

Sikalastic® U-Primer

Sikalastic® U-Primer is a 1-part, polyurethane, solvent-based, primer for concrete, cementitious and bituminous substrates. It is used before applying waterproofing and coating systems

Sikalastic®-632 R**

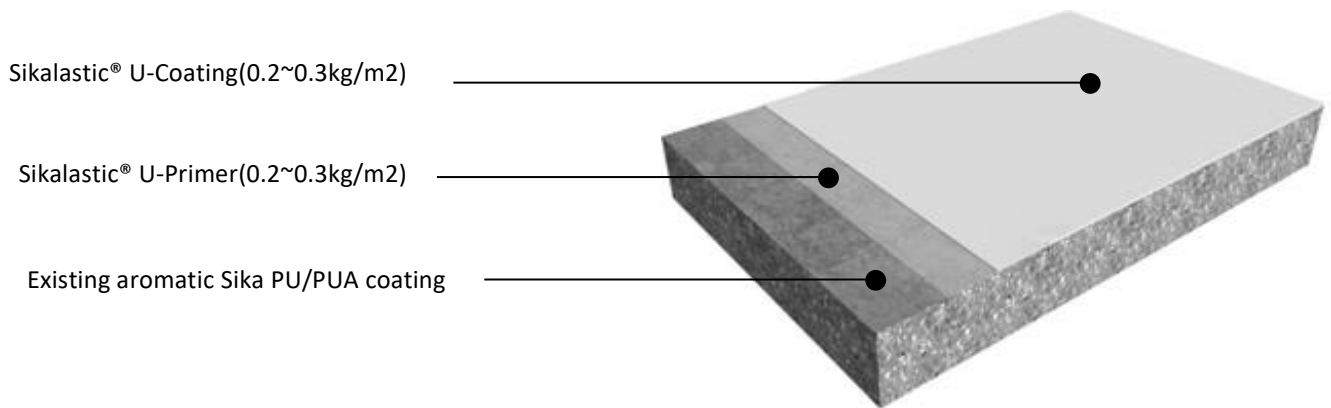
Single component cold applied polyurethane membrane. Rain resistant after 20 minutes. Offer a simple, long life and safe solution to roofs

Sikalastic® U-Coating

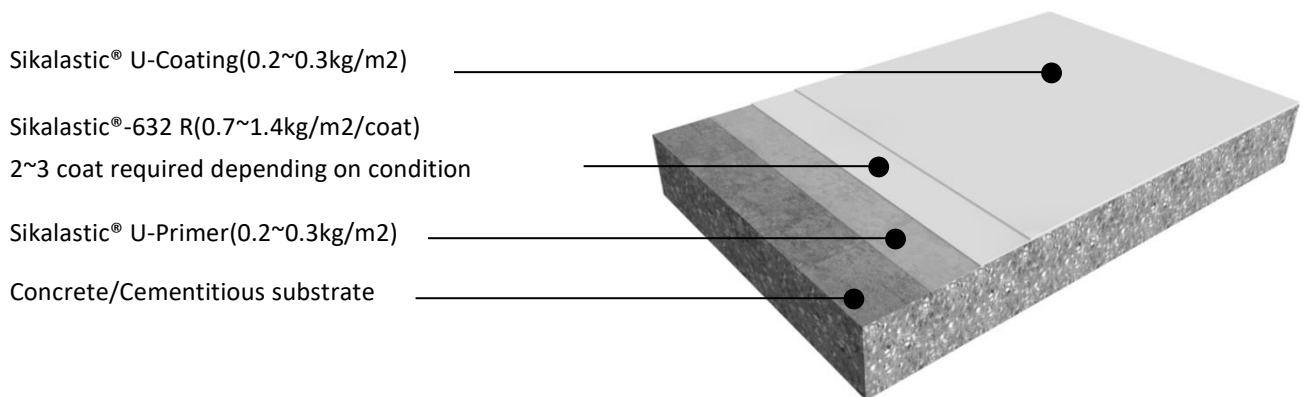
Sikalastic® U-Coating is a high performance top coat for use over aromatic LAM and 2-C PU/PUA Roof waterproofing systems with good long term weathering performance, UV resistance and excellent gloss retention.

2.2 SYSTEM BUILD UP

System for existing waterproofing membrane



System for coating refurbishment(un-reinforced)**



* This graphic only illustrates the system of the waterproofing function. These figures are theoretical and do not include for any additional material due to surface porosity, surface profile, variations in level and wastage etc

** This build up is for the areas old membrane was completely removed due to lack of waterproofing performance

3 PRE-PROJECT PREPARATION

3.1 PROJECT CHECK

It is invaluable to check the project in advance. The following checklist, although not exhaustive, is a guide the most important points to take in consideration.

- ✓ Check that the construction and substrate are in good condition.
- ✓ Check that the surface is dry and **substrate moisture is maximum 4%** (max. 6 % according to Tramex Meter) without emitting dampness.
- ✓ Protect objects located close to the roof by appropriate means.
- ✓ During phase of refurbishment, check that the application on the roof is not disturbing the internal and surrounding environment.
- ✓ Check that the necessary health and safety equipment e.g. full-face masks, scaffolding, ladder etc. is available on site.
- ✓ Check the measurement of the project.
- ✓ Make a programme for the whole project. Check staff (where necessary) are available when required, all products including tools/equipment as well as the protective health and safety equipment are available at and for the required period of time.
- ✓ **Check weather conditions** system requires conditions as below.
- ✓ **Substrate Temperature**
Sikalastic® U-Coating: + 8 °C min. / + 55 °C max.
- ✓ **Ambient Temperature**
Sikalastic® U-Coating: - 5 °C min. / +40 °C max.
- ✓ **Relative Humidity:** 85% r.h. max
- ✓ **Dew Point** - Beware of condensation! The substrate and uncured membrane must be at least 3 °C above the dew point to reduce the risk of condensation. Condensation may affect adhesion and could affect appearance – see below.

3.2 DETERMINATION OF MOISTURE CONTENT, SUBSTRATE-/AMBIENT TEMPERATURE AND RELATIVE AIR HUMIDITY

Prior to application of the primer the substrate moisture content, substrate temperature, ambient temperature and relative humidity must be determined, using appropriate devices.



Substrate moisture content:

Moisture content < 4% by weight. (max. 6 % according to Tramex Meter)

Suitable devices, to carry out the measurement at the jobsite, are e.g. the Sika Tramex moisture meter or the Calcium Carbide Method which provides more accurate readings in comparison.



Substrate temperature

Substrate temperature > + 8 °C min. / + 55 °C max.

The substrate temperature has to be measured continually during application.



Ambient temperature

Ambient temperature: -5 °C min. / + 40 °C max.

Note: The speed of any chemical reaction is dependent on temperature. As a general rule, the higher the temperature, the more rapid the reaction.



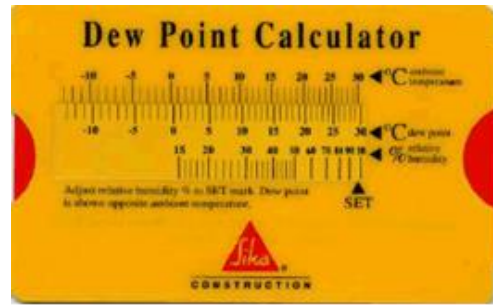
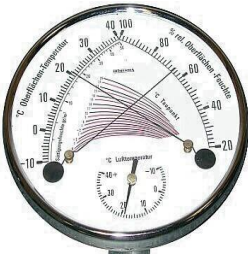
Relative air humidity

Relative air humidity: 85% r.h. max

Beware of condensation! See determination of dew point under 3.3!

3.3 DETERMINATION OF DEW POINT

It is important to pay close attention to avoiding dew point conditions. The application temperature must exceed the dew point by at least 3 °C. The dew point can be defined with a point device or manually by the dew point chart as following explained.



1. Measure air temperature in °C
2. Measure atmospheric humidity in %
3. Measure substrate temperature in °C
4. Determine dew point temperature using dew point chart or Sika slide rule guide
5. Add 3 °C to dew point temperature
6. Verify that substrate temperature is at least 3 °C higher than dew point

Example: Air temperature: 20 °C Atmospheric humidity: 60% Substrate temperature: 16 °C

Determined dew point temperature with dew point chart: 12.0 add 3 °C: 15.0 °C.

Verify: Is 16 °C greater than 15.0 °C? Decision: Yes, Installation is permissible.

Dew Point Chart

Room air temperature	Dew point temperature in °C													
	Relative humidity in %													
	30%	35%	40%	45%	50%	55%	60%	65%	70%	75%	80%	85%	90%	95%
30	10,5	12,9	14,9	16,8	18,4	20,0	21,4	22,7	23,9	25,1	26,2	27,2	28,2	29,1
29	9,7	12,0	14,0	15,9	17,5	19,0	20,4	21,7	23,0	24,1	25,2	26,2	27,2	28,1
28	8,8	11,1	13,1	15,0	16,6	18,1	19,5	20,8	22,0	23,2	24,2	25,2	26,2	27,1
27	8,0	10,2	12,2	14,1	15,7	17,2	18,6	19,9	21,1	22,2	23,3	24,3	25,2	26,1
26	7,1	9,4	11,4	13,2	14,8	16,3	17,6	18,9	20,1	21,2	22,3	23,3	24,2	25,1
25	6,2	8,5	10,5	12,2	13,9	15,3	16,7	18,0	19,1	20,3	21,3	22,3	23,2	24,1
24	5,4	7,6	9,6	11,3	12,9	14,4	15,8	17,0	18,2	19,3	20,3	21,3	22,3	23,1
23	4,5	6,7	8,7	10,4	12,0	13,5	14,8	16,1	17,2	18,3	19,4	20,3	21,3	22,2
22	3,6	5,9	7,8	9,5	11,1	12,5	13,9	15,1	16,3	17,4	18,4	19,4	20,3	21,2
21	2,8	5,0	6,9	8,6	10,2	11,6	12,9	14,2	15,3	16,4	17,4	18,4	19,3	20,2
20	1,9	4,1	6,0	7,7	9,3	10,7	12,0	13,2	14,4	15,4	16,4	17,4	18,3	19,2
19	1,0	3,2	5,1	6,8	8,3	9,8	11,1	12,3	13,4	14,5	15,5	16,4	17,3	18,2
18	0,2	2,3	4,2	5,9	7,4	8,8	10,1	11,3	12,5	13,5	14,5	16,4	16,3	17,2
17	-0,6	1,4	3,3	5,0	6,5	7,9	9,2	10,4	11,5	12,5	13,5	15,5	15,3	16,2
16	-1,4	-0,5	2,4	4,1	5,6	7,0	8,2	9,4	10,5	11,6	12,6	14,5	14,4	15,2
15	-2,2	-0,3	1,5	3,2	4,7	6,1	7,3	8,5	9,6	10,6	11,6	13,5	13,4	14,2
14	-2,9	-1,0	0,6	2,3	3,7	5,1	6,4	7,5	8,6	9,6	10,6	12,5	12,4	13,2
13	-3,7	-1,9	0,1	1,3	2,8	4,2	5,5	6,6	7,7	8,7	9,6	10,5	11,4	12,2
12	-4,5	-2,6	1,0	0,4	1,9	3,2	4,5	5,7	6,7	7,7	8,7	9,6	10,4	11,2
11	-5,2	-3,4	1,8	-0,4	1,0	2,3	3,5	4,7	5,8	6,7	7,7	8,6	9,4	10,2
10	-6,0	-4,2	2,6	-1,2	0,1	1,4	2,6	3,7	4,8	5,8	6,7	7,6	8,4	

4 SUBSTRATE PREPARATION & APPLICATION

4.1 EXISTING SIKA AROMATIC POLYURETHANE COATING

Power wash and conduct site specified adhesion tests as required. Remove loose or degraded coating. When applying Sikalastic® U- Coatings over previously applied coatings, ensure that the existing material is sound and firmly adhered. For further information about specific applications, please consult our Technical Customer Services Department

4.2 REFURBISHMENT OF EXISTING SIKA AROMATIC POLYURETHANE COATING

Areas with delaminated or degraded coating must be fully removed until substrate exposed. Powerwash and dry substrate. Check substrate condition, moisture content and dew point and make sure the substrate condition is ready to accept primer. Apply Sikalastic® U-Primer (2coat recommended for highly absorbent and porous substrate) and apply Sikalastic®-632 R(area with cracks and joins must be reinforced with Sika Fleece or Reemat Premium and ensure the reinforcement layer is fully embedded into coating layer). Apply 2nd coat of Sikalastic®-632 R (if required). For further information about refurbishment, please refer method statement of Sikalastic®-632 R or SikaRoof® MTC system and consult our Technical Customer Services Department for specific applications.

4.3 SURFACE PREPARATION

The surface must be sound, of sufficient strength, clean, dry and free of dirt, oil, grease and other contamination. The following section suggests methods of dealing with most common substrates.

4.4 APPLICATION OF THE TOPCOAT SIKALASTIC® U-COATING

Before applying Sikalastic® U-Coating, check the previously applied area and make sure that this is looking good, free of defects and suitable to receive a top coat.

Sikalastic® U-Coating is supplied in the correct proportions of component A (resin) and component B (hardener). Prior to mixing the temperature of the material must be between 10-25 °C. Pour component B into the container of component A and ensure that container B is emptied completely. To achieve a homogeneous mix, both components must be thoroughly mixed with a mixing device at about 300 rev/min. Ensure that the mixing device reaches side and bottom areas of the mixing vessel. Stir for at least 3 minutes or until the blend is homogeneous and streak free. Do not use the material out of container supplied. Pour the mix into another container and remix for 1 minute. Sikalastic® U-Coating is applied by spreading the material with a flat squeegee and finish by back rolling. The application would be done with good quality rollers made out of lamb hair, medium hair length 12-16 mm. Do not exceed maximum consumption figure. Avoid puddles. The workability of reactive resins is influenced by the ambient and substrate temperature. At low temperatures the chemical reactions are slowed down; this lengthens the pot life, recoating interval and open time. At the same time the viscosity increases which leads to a higher consumption. High temperature accelerates chemical reactions so that the time frames mentioned above are shortened accordingly.



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To fully cure the material the substrate and working temperature must not fall below the minimum. The relative humidity limitations (minimum, maximum) must be observed.

Apart from these limitations, the respective guidelines for the use of reactive resins apply.

Always maintain a wet edge and finish surface as work proceeds. Going back to re-work areas that are partially dried may disrupt the surface. For more detailed information consult your Technical Representatives.

4.5 CURING TIME

Sikalastic® U-primer

Ambient conditions	Minimum waiting time	Maximum waiting time*
+20°C / 55 % r.h.	4 hours (and touch dry)	24 hours
+30°C / 85 % r.h.	3 hours (and touch dry)	24 hours

*After 24 hours the surface must be re-primed prior to the application of Sikalastic® U-Primer.

Sikalastic®-632 R

Ambient conditions	Minimum waiting time	Maximum waiting time*
+20°C / 55 % r.h.	4 hours	2 days
+30°C / 85 % r.h.	2 hours	2 days

*After 2 days the surface must be cleaned and primed prior to the application of another layer of Sikalastic®-632R.

Sikalastic® U-coating

Substrate temperature	Touch dry	Full cure
+10°C	8 Hours	6 days
+20°C	6 Hours	4 days
+30°C	5 Hours	3 days
+40 °C	3 Hours	2 days

Times are approximate and will be affected by changing ambient conditions particularly temperature and relative humidity.

5 DISCLAIMER

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