BUILDING TRUST

SYSTEM DATA SHEET

SikaRoof® PU-20 iCure

High performance, UV stable liquid applied polyurethane roof waterproofing system

PRODUCT DESCRIPTION

SikaRoof® PU-20 iCure is a 2 part, polyurethane hybrid system using Sikalastic® 625 N and Sikalastic® 701 liquid applied waterproofing systems.

USES

SikaRoof® PU-20 iCure may only be used by experienced professionals.
SikaRoof® PU-20 iCure can be used as following:

- Roof waterproofing for new construction and refurbishment projects
- Locally or fully reinforced waterproofing system for profiled metal roofs

CHARACTERISTICS / ADVANTAGES

- Aliphatic polyurethane providing UV and yellowing resistance
- Cold applied - requires no heat or flame
- Moisture triggered technology develops early rain resistance
- Low soiling and easily cleanable
- Good chemical resistance
- Resistant to ponding water
- Good elastic properties
- Low temperature application >+2°C
- Retains flexibility at low temperatures
- Easy and quick application
- Seamless
- Low maintenance

APPROVALS / STANDARDS

Liquid applied roof waterproofing kit according to ETAG 005, Part 1 and Part 6, (ETA-20/0073 Sikalastic® -625 N) & (ETA-20/248 Sikalastic®-701)
External Fire testing according to CEN/TS 1187:2012
Reaction to fire testing EN 13501-1, Broof t4, Report No 20227C

PRODUCT INFORMATION

Chemical Base

Sikalastic ®-625 N	Aliphatic Polyurethane
Sikalastic ®-701	Elastomeric Polyurethane/Hybrid

Packaging

Please refer to individual product data sheets

Shelf Life

Sikalastic®-625 N	12 months from date of production
Sikalastic®-701	12 months from date of production

Storage Conditions

Please refer to individual product data sheets

Colour

Sikalastic®-701 final colour - white/pale grey
Note: The product can be coloured locally with Sika® in Pail Tinting(IPT) machines.
Sikalastic®-625 N - Light Grey(RAL 7035); White(RAL 9016); Slate Grey(RAL 7015)

TECHNICAL INFORMATION

Tensile Strength

Sikalastic®-625 N		ISO 527-1/3
Reinforced	~13N/mm²	
Unreinforced	~6N/mm²	

Sikalastic®-701		ISO 527-1/3
Temperature	Value	
Reinforced	~13N/mm²	
Unreinforced	~6N/mm²	

Tear Strength

Sikalastic®-625 N	~26N/mm	ISO 527-1/3
Sikalastic® 701	~10.5N/mm	

Solar Reflectance Index

Sikalastic®-625 N	
Initial SRI (Convective Coefficient, Medium Wind)	~112

Sikalastic®-701	
Initial	110

Chemical Resistance

Resistant to many chemicals. Contact Sika Technical for additional information.

SYSTEM INFORMATION

System Structure

Layer	Product	Consumption
Localised Reinforcement	Sika Joint Tape SA®	Refer to Application Guide
Primer	Refer to "Substrate Pre-Treatment"	Refer to PDS of the respective primer
First Coat	Sikalastic®-625 N	0.75 L/m²
Second Coat	Sikalastic®-701	0.4 L/m²

Dry film thickness

~0.8mm

System Performance

W2, W3, M and S, P2 to P4, S1 to S4, TL4-TH4

Ambient Air Temperature

Sikalastic®-625 N	+2°C min / +30°C max
Sikalastic®-701	+2°C min / +40°C max

Relative Air Humidity

Sikalastic®-625 N	20% min / 85% max
Sikalastic®-701	35% min / 80% max

Dew Point

Beware of condensation.
The substrate and uncured applied product must be at least +3°C above dew point to reduce the risk of condensation or blooming on the surface of the applied product. Metal surfaces will be more prone to temperature fluctuations occurring and wind chill effects.

Substrate Temperature

Sikalastic®-625 N	+2°C min /+30°C max
Sikalastic®-701	
Above +20°C	30% min / 80% max
Below +20°C	45% min / 80% max

Substrate Moisture Content

Sikalastic®-625 N
≤4% parts by weight
The following test methods can be used to determine the substrate moisture content:
- Sika®-Tramex meter
- No rising moisture must be present according to ASTM (Polyethylene-sheet)

Applied Product Ready for Use

Sikalastic®-625 N

Ambient conditions	Rain resistant	Touch dry	Full cure
+2°C / 50%r.h.	~12 hours	~20 hours	~24 hours
+10°C / 50%r.h.	~9 hours	~15 hours	~24 hours
+20°C / 50%r.h.	~6 hours	~10 hours	~18 hours
+30°C / 50%r.h	~4 hours	~6hours	~14 hours

Sikalastic®-701

Ambient conditions	Rain resistant	Touch dry	Full cure
+10°C / 50%r.h.	~75 minutes	~150 minutes	~1 day
+20°C / 50%r.h.	~60 minutes	~120 minutes	~1 day
+30°C / 50%r.h.	~45 minutes	~90 minutes	~16 hours

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

VALUE BASE

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.

ECOLOGY, HEALTH AND SAFETY

REGULATION (EC) NO 1907/2006 - REACH

User must read the most recent corresponding Safety Data Sheets (SDS) before using any products. The SDS provides information and advice on the safe handling, storage and disposal of chemical products and contains physical, ecological, toxicological and other safety-related data.

APPLICATION INSTRUCTIONS

EQUIPMENT

Refer to the product data sheet for Sikalastic®-625N

SUBSTRATE PREPARATION

Refer to the metal substrate section on the product data sheet for Sikalastic®-625 N

MIXING

Sikalastic®-701 is a two-pack product. Please refer to the product data sheet for specific mixing guidance.

APPLICATION

Profiled Metal Roof Sheets - Localised Reinforcement for Roof Areas Only

Application of Localised Reinforcment

Sheet End Laps:

- Prepare and prime the corrugate roof sheet as appropriate.
- Apply 150mm wide of Sika® Joint Tape SA to prepared substrate.
- Remove 10–15cm of release liner from underside of the Sika® Joint Tape SA and position the tape centrally across the lap joint of the top and bottom sheet and pressing firmly into place. Continue to remove release liner, whilst moving across the lap joint. Be careful to follow the profile of the metal sheet and ensure a full and even contact is achieved.
- Ensure that the tape overlaps any end lap fixings by at least 25mm. Where this cannot be achieved, a separate piece of 75mm should be used to reinforce each fixing.
- Once in-place, always apply additional pressure to the surface to fully activate the bonding process, compress any creases and remove any trapped air.
- Use a hard roller for best results.

Sheet Side Laps:

- Prepare and prime the corrugate roof sheet as appropriate.
- Apply 150mm wide Sika® Joint Tape SA to the prepared substrate.
- Remove 10–15cm of release liner from the underside of the Sika® Joint Tape SA and position the tape centrally across the joint and press into place. Continue to remove release liner, whilst moving down the joint and pressing firmly onto the substrate surface.
- Ensure that the tape overlaps any side lap fixings by at least 25mm. Where this cannot be achieved, a separate piece of 75mm should be used to reinforce each fixing.
- Once in-place, always apply additional pressure to the surface to fully activate the bonding process, compress any creases and remove any trapped air.
- Use a hard roller for best results.

Bolt-Heads/Fixings:

Prior to application of Sika® Joint Tape SA ensure that any loose fixing caps and immediate surface corrosion is removed with a wire brush to St 2 or St 3.
Where there is visible corrosion, or surface delamination, ensure that the area receiving the tape is suitably prepared, and primed where necessary.

- Cut a piece of tape 75mm x 130mm and remove release liner. With the longest length of the tape running top to bottom of the sheet (following the pitch of the roof), apply the tape over the bolt head.
- Ensure that at least 75mm inches of the tape is pressed down tightly above the bolt/fixing head with no creases. Pull the remaining over the bolt-head and press down into place. Ensure that any creases occur underneath the bolt-head. Once in-place, always apply additional pressure to the surface in order to fully activate the bonding process, compress any creases and remove any trapped air. Use a hard roller for best results.
- The firmer the pressure applied, the faster and stronger the bond.

Tape Embedment:

- In any application, a light coat of Sikalastic®-625 N must be applied to the surface and edges of Sika® Joint Tape SA and allowed to cure. The purpose of this is to waterproof the surface of the tape and ensure that the surface of the fabric is fully embedded in the main coating. This can be applied using a roller or brush.
- Strictly follow installation procedures as defined in method statements, application manuals and working instructions which must always be adjusted to the actual site conditions.
- Reference must be made to the Sika Method Statement: Sikalastic®-625 N.

Gutter Joints - Metal Gutters - Bolted Joints/Fixings

- Inspect and carry out all necessary maintenance work to the metal gutter/s, gutter joints, and bolt heads/fixings. Fixings that are defective, corroded, missing should be renewed.
- Bridge each bolt head/fixing with Sika Flexistrip (minimum 50mm squares) by first removing the backing paper and applying light pressure to the patch edges to fix.
- Encapsulate each fixing/joint detail using Sika Reemat Premium patches, cut to requirements, and bedded in Sikalastic®-625 N applied at a minimum wet film thickness of 1000 microns. Allow to dry before continuing with the overall waterproofing.
- Apply the fully reinforced system through the metal gutter as specified.

Gutter Joints - Metal Gutters - Bond Break

- Inspect and carry out all necessary maintenance work to the metal gutter/s, gutter joints, and bolt heads/fixings. Fixings that are defective, corroded, missing should be renewed.
- Introduce a 'bond break' at each gutter joint by first laying 50mm (minimum width) low tack de-bonding tape centred on the joint.
- Apply a 'stripe' coat (200mm wide) of Sikalastic®-625N to each seam/joint at a minimum wet film thickness of 1000 microns and whilst wet, Sika Flexitape Heavy (150mm) using a loaded brush to obliterate the tape.
- Allow to dry before continuing with the top coats.

Field Areas Waterproofing Application

Application of Sikalastic®-625N

- Apply an initial coat of Sikalastic®-625N to the primed, sound, surfaces, by brush or airless spray using a minimum quantity of 0.75 litre per square metre to achieve a minimum wet film thickness of 0.75mm (750 microns).
- At this stage, check the coating for pinholes and apply further material to correct if necessary. Allow to dry before applying the next coat.

Application of Sikalastic®-701

Mixing

- Prior to mixing all parts, mix separately Part A (resin) using an electric single or double paddle mixer and stirrer (300 to 400 rpm) or other suitable equipment.
- Mix liquid and all the coloured pigment until a uniform colour / mix has been achieved.
- Add Part B (hardener) to Part A and mix Part A + B continuously for 3,0 minutes until a uniformly coloured mix has been achieved. Mix full units only. Mixing time for A+B = ~3,0 minutes.

Note: Ensure all of part B (hardener) has been emptied from the tin before mixing.

Application

- Apply a coat of Sikalastic®-701 to these areas, again by brush, roller or airless spray and again using a maximum quantity of 0.4 litre per square metre. Allow to dry.

CLEANING OF TOOLS

Clean all tools and application equipment with water immediately after use. Hardened material can only be removed mechanically or with a proprietary paint stripper.

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.

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