



# PRODUCT DATA SHEET

## SikaFix®-601

Silicate injection resin for ground solidification and stabilisation in tunnelling and mining

### PRODUCT DESCRIPTION

SikaFix®-601 is a 2-part, silicate based, rigid, fast curing and non-foaming, injection resin for ground solidification and stabilisation with short reaction times.

### WHERE TO USE

SikaFix®-601 may only be used by experienced professionals.

- Solidification and stabilisation of loose rock in crevices, cavities and unstable ground conditions
- Sealing water-bearing cracks
- Bonding anchors into rock / ground etc.

### CHARACTERISTICS / ADVANTAGES

- High mechanical strength
- Hardens on contact with water without foaming
- Very fast curing and solidification
- Very good adhesion on dry and damp substrates
- Easy application (mix ratio by volume of 1:1)
- High penetration ability
- Low initial viscosity
- CFC and halogen-free

### APPROVALS / CERTIFICATES

- Drinking Water KTW, SikaFix®-601, LADR GmbH, Certificate No. 6490/00/01

### PRODUCT INFORMATION

<b>Composition / Manufacturing</b>	2-part silicate resin	
<b>Packaging</b>	Part A	28,50 kg container
	Part. B	24,80 kg container
	Part. A (IBC)	1300 kg
	Part. B (IBC)	1200 kg
<b>Shelf Life</b>	12 months from date of production	
<b>Storage Conditions</b>	The product must be stored in original, unopened and undamaged sealed packaging in dry conditions at temperatures between +5 °C and +35 °C. Always refer to packaging.	
<b>Colour</b>	Part A	Slightly cloudy liquid
	Part B	Black / brown liquid

<b>Density</b>	Part A	~1,44 kg/l	(ISO 2811)
	Part B	~1,23 kg/l	
	Part A + B (mixed density)	~1,28–1,31 kg/l	
values at +23 °C			
<b>Flash Point</b>	Part A	not determinable	(DIN 53213)
	Part B	+220 °C	
<b>Viscosity</b>	Part A	~210 mPa·s	(acc. ISO 3219)
	Part B	~180 mPa·s	
	values at +23 °C		

## TECHNICAL INFORMATION

<b>Shore D Hardness</b>		<b>+12 °C</b>	<b>+23 °C</b>	<b>+30 °C</b>	(Standard)
	1 hour	~60	~70	~60	
	24 hours	~60	~70	~70	
<b>Compressive Strength</b>	1 hour / +23 °C	~65 N/mm <sup>2</sup>			(ISO 604)
	3 days / +23 °C	~75 N/mm <sup>2</sup>			
<b>Tensile Strength</b>	3 days / +23 °C	~12 N/mm <sup>2</sup>			(ISO 527)

## APPLICATION INFORMATION

<b>Mixing Ratio</b>	1:1 parts by volume (also refer to mixing instructions)			
<b>Ambient Air Temperature</b>	+5 °C min. / +35 °C max.			
<b>Substrate Temperature</b>	+5 °C min. / +35 °C max.			
<b>Curing Time</b>	Reaction time (PM 10811-6)			
		<b>+12 °C</b>	<b>+23 °C</b>	<b>+30 °C</b>
	Liquid limit	~60 s	~30 s	~25 s
	Tack-free	~120 s	~70 s	~45 s
	Solid	~150 s	~90 s	~60 s

## BASIS OF PRODUCT DATA

Product properties are typically averages, obtained under laboratory conditions. Reasonable variations can be expected on-site due to local factors, including environment, preparation, application, curing and test methods.

## FURTHER INFORMATION

- Sika® Method Statement: SikaFix®-601

## LIMITATIONS

Installation work must only be carried out by Sika® trained and /or approved contractors, experienced in this type of application.

- Use injection lances or packers / ports with a sufficiently large flow opening.

- Site trials must be undertaken before starting the injection work in order to verify the setting times are suitable for the specific conditions.

## ENVIRONMENT, HEALTH & SAFETY

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

#### Mixing & Injection

- 2-Component injection pump suitable for silicate resins

### MIXING

SikaFix®-601 is supplied in containers, pre-batched to the required mixing ratio of 1 : 1 parts by volume. Before mixing with Part B, Part A must be thoroughly stirred separately with a suitable low-speed electric drill and paddle mixer (300 rpm max).

Both components must be mixed together with a suitable 2 Component injection pump by extracting the Part A and Part B liquids directly from the supplied containers. The mixing device (static mixer) must be suitable to ensure that Parts A and B are mixed to form a uniform and stable emulsion. Longer static mixers with smaller mixing spirals are recommended to ensure an optimised mixing process during pumping and installation.

### APPLICATION METHOD / TOOLS

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: SikaFix®-601.

### CLEAN UP

Intermediate cleaning and flushing of the static mixer can be carried out using Part A while Part B is circulated through the pump's bypass. Final cleaning has to be completed by flushing with water (Part A side of pump) and Sika® Injection Cleaner C1 (Part B side of pump). If the pump is not to be used for a long period, it must be filled with Sika® Injection Conservator. Hardened material can only be removed mechanically.

## LOCAL RESTRICTIONS

Note that as a result of specific local regulations the declared data and recommended uses for this product may vary from country to country. Consult the local Product Data Sheet for exact product data and uses.

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## 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 recommendations, or from any other advice offered. The information contained herein does not relieve the user of the products from testing them for the intended application and purpose. 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 or may be downloaded from our website at: [www.sika.ca](http://www.sika.ca)

SikaFix-601-en-CA-(09-2024)-2-1.pdf

#### Product Data Sheet

SikaFix®-601  
September 2024, Version 02.01  
020707070020000001

