

Sikasil® SG-20

DECLARATION OF PERFORMANCE

No. 15323048

1	UNIQUE IDENTIFICATION CODE OF THE PRODUCT-TYPE:	15323048
2	INTENDED USE/S	ETA-06/0090/ ETAG 002, edition 2000, used as European Assessment Document (EAD) Structural sealant for use in structural sealant glazing systems
3	MANUFACTURER:	Sika Services AG Tüffenwies 16-22 8064 Zürich
4	AUTHORISED REPRESENTATIVE:	
5	SYSTEM/S OF AVCP:	System 1 for SSGS kit Types II and IV, System 2+ for SSGS kit Types I and III
6b	EUROPEAN ASSESSMENT DOCUMENT:	ETAG 002, edition 2000, used as European Assessment Document (EAD)
	European Technical Assessment:	ETA-06/0090 of 13/01/2016
	Technical Assessment Body:	Centre Scientifique et Technique du Bâtiment (CSTB)
	Notified body/ies:	0757

Declaration of Performance

Sikasil® SG-20
15323048
2019.03, ver. 01
1024

7 DECLARED PERFORMANCE/S

3 Performance of the product and references to the methods used for its assessment

The assessment of the fitness for use of the structural sealants for the intended use in relation to the requirements for safety in case of fire, hygiene, health and environment, safety in use, energy economy and heat retention in the sense of Essential Requirements 2, 3, 4 and 6 has been carried out in accordance with ETAG 002-Part 1.

3.1 Mechanical resistance and stability (BWR 1)

Not relevant.

3.2 Safety in case of fire (BWR 2)

Reaction to fire: class F (No performance determined).

3.3 Hygiene, health and the environment (BWR 3)

Dangerous substances:

The manufacturer declared the presence of dangerous substances in conformity with the Council Regulation 1272/2008 (CLP) and supplied the MSDS (Material Safety Data Sheet).

In addition to the specific clauses relating to dangerous substances contained in this ETA, there may be other requirements applicable to the sealants (e.g. transposed European legislation and national laws, regulations and administrative provisions).

In order to meet the provisions of the EU Construction Product Regulation, these requirements need also to be complied with, when and where they apply.

3.4 Safety and accessibility in use (BWR 4)

The characteristics of the sealants have been established on the basis of test results in accordance to chapter 5.1.4. of ETAG 002 section 1.

3.5 Protection against noise (BWR 5)

Not relevant.

3.6 Energy economy and heat retention (BWR 6)

No evaluation made on the sealants. The thermal conductivity to be taken into account for further calculation on structural sealant glazing system is $\lambda = 0,35 \text{ W/m.K}$.

3.7 Sustainable use of natural resources (BWR 7)

For sustainable use of natural resources no performance was investigated for this product.

Declaration of Performance

Sikasil® SG-20
15323048
2019.03, ver. 01
1024

3.8 Durability

Durability of fitness for use of SIKASIL® SG-20 in structural seal:

All the specific aspects of durability have been covered, under above headings, more particularly BWR4 SAFETY.

Declaration of Performance

Sikasil® SG-20
15323048
2019.03, ver. 01
1024

Responsibilities

AVCP system 1 according to Council Regulation 89/106/EEC of the European Parliament and of the Council Annex V provides :

1) Task for the manufacturer

a. factory production control,

b. testing of samples taken at the factory by the manufacturer in accordance with a prescribed test plan.

2) Task for the approved body

a. Initial type testing of the product.

b. Initial inspection of the factory and factory production control.

c. Continuous surveillance, assessment and approval of the factory production control.

1. Tasks of the manufacturer, factory production control

1.1 Factory production control

The manufacturer has a factory production control system in its plant and exercises permanent internal control of production. All the elements, requirements and provisions adopted by the manufacturer are documented in a systematic manner in the form of written policies and procedures. This production control system ensures that the product is in conformity with the European Technical Assessment.

The incoming materials are subjected to controls and tests by the manufacturer before acceptance according to a prescribed test plan.

The manufacturer proceeds to controls during the production according to specific policies. Those controls include:

- Colour, appearance, viscosity.
- Tack-free time, skin time, shore A-hardness, sag-test, tensile strength and elongation at break at initial state and after conditioning C2 according ETAG 002, peel adhesion to glass and to aluminium at initial state and after conditioning C2 according ETAG 002 {3 samples after 7 days immersion in water at 23•c and 3 samples after 7 days in an oven at 100•q.

The results of factory production control are recorded and evaluated. The records include at least the following information:

- Designation of the product.
- Batch number.
- Type of testing.
- Results of testing and comparison with the requirements.

STRUCTURAL SEALANT	ANNEX 1 (1/2) of ETA-06/0090
Tasks and responsibilities	

Declaration of Performance

Sikasil® SG-20
15323048
2019.03, ver. 01
1024

2. Tasks of notified bodies

2.1 Initial type test

For initial type testing, the results of the tests performed as part of the assessment for the European Technical Evaluation shall be used unless there are changes in the production line or plant. In such cases, the necessary initial type testing has to be agreed between the Centre Scientifique et Technique du Batiment and the notified body involved.

2.2 Initial inspection of the factory and factory production control

The approved body shall ascertain that, in accordance with the prescribed test plan, the factory and the factory production control are suitable to ensure continuous and orderly manufacturing of the sealant according to the specification given in chapter 2.1 of the ETA.

2.3 Continuous surveillance

The approved body shall visit the factory twice a year.

It has to verify the continuing conformity to the ETA taking into account the prescribed test plan.

This continuous surveillance is performed as per ETAG 002 § 8.3.

2.4 Certification

When all criteria for conformity attestation are fulfilled, the notified body shall issue a certificate of conformity with this ETA (for System 1).

3. CE marking

The CE marking shall be affixed on each cartridge or packaging of sealant. The symbol "CE" shall be accompanied by the following information:

- Name of identifying mark of the producer and plant.
- Identification number of the approved body.
- Identity of the product (commercial name).
- ETA number.
- Number of EC certificate of conformity
- DOP
- ETAG 002 (edit 2000) reference

STRUCTURAL SEALANT	ANNEX 1 (2/2) of ETA-06/0090
Tasks and responsibilities	

Declaration of Performance

Sikasil® SG-20
15323048
2019.03, ver. 01
1024

1. Manufacturing

The sealants are manufactured by Sika Engineering Silicones (Peschiera Borromeo, Italy) in accordance to the provisions of the European Technical Assessment using a specific manufacturing process as identified during inspection of the plant by the Centre Scientifique et Technique du Batiment and the approved body and laid down in the technical document.

The maximum delay of use of sealant after the manufacturing is 9 months.

2. Installation

2.1 Design rules of the sealant

The section of the structural sealant bead is calculated in accordance to ETAG 002-1 annex 2 where W is defined in national design codes.

2.2 Suitable substrates for structural adhesion surface

The suitable substrates are given hereafter:

- 1) Anodised aluminium alloy.

Alloy (EN 573-3)	Metallurgic state (EN 515)	Mechanical characteristics	Anodisation
EN AW 6060	T5	EN 755-2	Class 15 min
EN AW 6063	T6		

- 2) Float glass conforming to EN 572 "Glass in Building- Basic Products", Part 1, 2, 4, 5 and eventually thermally treated glass made from (conform to EN 1863 "Glass in Building- Heat Strengthened Glass" and EN 12150 "Glass in Building – Thermally Toughened Safety Glass").

The coated glass has to comply with the requirements of ETAG 002 § 5.2.3.3, if not it must be totally removed from the structural adhesion surface.

For any other substrate, the evaluation shall be performed by reference to ETAG 002-1 § 5.1.4. and they must be certified by an assessment body.

For particular substrate included in a generic family, the evaluation rules are given in ETAG 002-1 § 5.3.

STRUCTURAL SEALANT

Assumptions under which the fitness of the product(s) for the intended use was favourably assessed

ANNEX 2 (1/2)
of ETA-06/0090

Declaration of Performance

Sikasil® SG-20
15323048
2019.03, ver. 01
1024

2.3 Design of Structural Sealant Glazing System

Water stagnation is not allowed in the vicinity of the structural seal. The SSGS shall be designed to provide sufficient drainage and ventilation around the sealant section.

The SSG system shall be designed to allow the realisation of a regular, rectangular structural sealant bead without insert nor discontinuous substrate.

2.4 Application of the sealant

The ETA applicant provides to his clients a complete procedure for the bonding and specifications for installation including the following conditions:

- Temperature of application between +5°C and +40°C in a workshop, in a dust free location.
- The substrates shall be free from superficial condensation free of all loose material, dirt, rust on oil and other contaminants.
- Procedure for cleaning the substrates.
- Procedure for application of the primer when necessary.
- Optimum conditions for application of the sealant itself: gunning temperature between +15°C and +30°C with relative humidity between 40% and 80%.
- Storage: the bonded frame must be stored horizontally (between 15 minutes and 7 days after sealing depending on the mastic thickness).
The successive storage (between 7 days and 21 days) depend on the curing process and environmental conditions, respectively, and must be defined jointly with Sika's Technical Service.
- Time before loading if curing under these conditions: 21days. Nevertheless, earlier transportation to work site is possible, if the mastic is completely cured and following conditions are met (see ETAG 002-1, table 10- Checks during the production): the test H-samples give the following results: rupture 100% cohesive and break stress 0,7 MPa.

2.5 Recommendation for facade cleaning product

It is recommended to use the following product for facades cleaning.

- 1% solution of a neutral detergent in water (pH= 7).

Nevertheless, the assessment of the facade cleaning agent must be done in the framework of the ETA for the kit to check compatibility aspect with other components.

2.6 Chemical compatibility

No assessment has been made in the framework of the present ETA.

2.7 Responsibility of the ETA holder

It is the responsibility of the ETA holder to ensure that the information on the related component requirements and their fabrication and setting is given to the person concerned. This information may be made by reproduction of the relevant parts of the European Technical Assessment.

2.8 Distribution

The sealants is put on the market under the following condition:


Supplier	Trade names	
SIKA	SIKASIL® SG-20	
STRUCTURAL SEALANT		ANNEX 2 (2/2) of ETA-06/0090
Assumptions under which the fitness of the product(s) for the intended use was favourably assessed		

Declaration of Performance

Sikasil® SG-20
15323048
2019.03, ver. 01
1024



FULL CE MARKING

 06
Sika Services AG, Zurich, Switzerland
15323048
ETAG 002 Part 1 Edition November 1999 (Revised March 2012) used as EAD
Notified Body 0757
Structural sealant for use in structural sealant glazing systems

3 Performance of the product and references to the methods used for its assessment

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Declaration of Performance

Sikasil® SG-20
15323048
2019.03, ver. 01
1024

Not relevant.

3.6 Energy economy and heat retention (BWR 6)

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15323048
2019.03, ver. 01
1024

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STRUCTURAL SEALANT	ANNEX 1 (1/2) of ETA-06/0090
Tasks and responsibilities	

Declaration of Performance

Sikasil® SG-20
15323048
2019.03, ver. 01
1024

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STRUCTURAL SEALANT	ANNEX 1 (2/2) of ETA-06/0090
Tasks and responsibilities	

Declaration of Performance

Sikasil® SG-20
15323048
2019.03, ver. 01
1024

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STRUCTURAL SEALANT

Assumptions under which the fitness of the product(s) for the intended use was favourably assessed

ANNEX 2 (1/2)
of ETA-06/0090

Declaration of Performance

Sikasil® SG-20
15323048
2019.03, ver. 01
1024

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STRUCTURAL SEALANT		ANNEX 2 (2/2) of ETA-06/0090
Assumptions under which the fitness of the product(s) for the intended use was favourably assessed		

Declaration of Performance

Sikasil® SG-20
15323048
2019.03, ver. 01
1024

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Declaration of Performance

Sikasil® SG-20
15323048
2019.03, ver. 01
1024



CE MARKING TO BE PLACED ON THE LABEL

 06
Sika Services AG, Zurich, Switzerland
15323048
ETAG 002 Part 1 Edition November 1999 (Revised March 2012) used as EAD
Notified Body 0757
Structural sealant for use in structural sealant glazing systems
For details see accompanying documents
dop.sika.com

ECOLOGY, HEALTH AND SAFETY INFORMATION (REACH)

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

LEGAL NOTE

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 products 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.

Declaration of Performance

Sikasil® SG-20
15323048
2019.03, ver. 01
1024



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Declaration of Performance
Sikasil® SG-20
15323048
2019.03, ver. 01
1024

17/17

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