

Sikasil® SG-500

DECLARATION OF PERFORMANCE

No. 15754339

1	UNIQUE IDENTIFICATION CODE OF THE PRODUCT-TYPE:	15754339
2	INTENDED USE/S	ETA-03/0038/ ETAG 002 Part 1 Edition November 1999 (Revised March 2012) used as EAD Structural sealant for use in structural sealant glazing kits
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:	Guideline for European technical approval of "Structural sealant glazing systems", ETAG 002 Edition November 1999 (Revised March 2012) Part 1: "Supported and unsupported systems", used as European Assessment Document (EAD) according to Article 66 Paragraph 3 of Regulation (EU) No 305/2011.
	European Technical Assessment:	ETA-03/0038 of 16/03/2014
	Technical Assessment Body:	Deutsches Institut für Bautechnik (DIBt)
	Notified body/ies:	0757

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7 DECLARED PERFORMANCE/S

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

Indications for reaction to fire and for design calculation see Annex 2.

3.1 Mechanical resistance and stability (BWR 1)

Requirements with respect to the mechanical resistance and stability of non-load bearing parts of the works are not included in this Essential requirement but are under the Essential Requirement safety in use, Section 3.4.

3.2 Safety in case of fire (BWR 2)

Essential characteristic	Performance
Reaction to fire	Class F (no performance determined)

The resistance to fire shall be assessed within the framework of the European Technical Assessment for the kit.

3.3 Hygiene, health and the environment (BWR 3)

Contents and/or release of dangerous substances:

The chemical composition of the structural sealant has to be in compliance with the composition deposited at the Technical Assessment Body (DIBt).

The structural sealant does not contain or release dangerous substances according to EOTA TR034 (version April 2014), except WOC, VOC, SVOC - no performance determined. Within the scope of this European Technical Assessment there may be other requirements applicable to the product (e.g. due to national laws, regulations and administrative provisions).

These requirements need also to be complied with if applicable.

3.4 Safety and accessibility in use (BWR 4)

3.4.1 Essential characteristics for the structural bond according ETAG 002-1

Essential characteristic	Performance
Characteristic stress at rupture -tension $R_{u,t}$	0.84 MPa
Characteristic stress at rupture- dynamic shear $R_{u,s}$	0.63 MPa
Modulus of elasticity in tension or compression tangential to the origin E_0	1.5 MPa
Modulus of elasticity in shear tangential to the origin G_0	0.5 MPa
Working time (at 23°C, 50% R.H.)	20 minutes
Tack-free time (at 23°C, 50% R.H.)	120 to 240 minutes
Time before transport of the bonded frame*	7 days

* An earlier transportation on work site is possible if the following two conditions are respected (see ETAG 002-1 Table 10 Checks during the production): The tested H-samples give the following result: Rupture 100% cohesive and breaking stress ≥ 0.7 MPa.

3.4.2 Structural sealant - identification characteristics

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Test	ETAG 002-1 reference	Result
Specific mass (mixed at 13/1 ratio)	5.2.1.1	$V_{\text{mean}} = 1.36 \pm 0.025 \text{ g/cm}^3$
Hardness Shore A	5.2.1.2	Mean of 39 (minimum of 34)
Thermogravimetric analysis	5.2.1.3	Curve kept in the technical file of the European Technical Assessment
Colour	5.2.1.4	Black colour

This European Technical Assessment is issued for the structural sealant Sikasil® SG-500 on the basis of agreed data/information, deposited with the DIBt, which identifies the product that has been assessed and judged. Changes to the product/production process, which could result in the deposited data/information being incorrect, should be notified to the DIBt before the changes are introduced. The DIBt will decide whether or not such changes affect the European Technical Assessment and consequently the validity of the CE-marking on the basis of the European Technical Assessment and if so whether further assessment/alterations of the European Technical Assessment shall be necessary.

3.4.3 Complementary products for preparing the structural seal adhesion surface

The characteristic values according section 3.4.1 apply, provided that the adhesion surfaces for the structural bond are in accordance with ETAG 002-1, Section 2.1. The following specifications as well as Annex 1 shall be respected.

3.4.3.1 Enamelled glass as adhesion surface

The coloured pigment made of mineral material may not exceed 25 Mol-% before ceramic penetration. The surface property after penetration should meet the following conditions and for this an inspection certificate 3.1 according EN 102042 is required from the glass producer:

Minimal scratch hardness according to EN ISO 1518-1³: 16 N

Porosity according to ASTM C 1048⁴: no porosity

Minimal gloss level according to DIN 67530⁶ measuring a recess of 60: 20

3.4.3.2 Anodised aluminium as adhesion surface

In Annex 1 manufacturers and their procedures for anodisation are listed. In the context of issuing this European Technical Assessment these kind of anodised surfaces had been assessed. The alloys of aluminium for these types of application are alloys EN AW 6060 state T66 or EN AW 6063 state T66 according to EN 755-2⁶.

3.4.3.3 Stainless steel as adhesion surface

Stainless steel material shall be austenitic alloy. Only the tested surface finish can be actually used in practice. During the process of issuing this European Technical Assessment the stainless steel materials listed in Annex 1 are assessed for bonding with Sikasil®SG-500.

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3.4.3.4 Adhesion surface preparation

The following products have to be used as pretreatment of the adhesion surfaces:

Cleaning products:	Sika Cleaner G&M Sika Cleaner P
Activator:	Sika Aktivator 205 Sika Aktivator
Primer:	Sika Promer-790 Sika Primer-210

The data sheets of these products are deposited with Deutsches Institut für Bautechnik.

The pretreatment methods for the adhesion surfaces according Annex 1 should be in compliance with the deposited test reports. The structural sealant applier gets this information from SIKA Services AG. During the factory production control the applier of the structural sealant should produce and test specimen with original composition that means including pretreatment of the surfaces according the control plan 7 of the respective European Technical Assessment of the kit.

3.4.3.5 Stepped insulated glass units

For the manufacture of stepped insulating glass units the adhesion surface may be coated - before the actual sealing - with a (1.5 ± 0.5) mm thick sealant layer according to the method deposited with Deutsches Institut für Bautechnik. For the coating the structural sealant Sikasil®SG-500 as well as Sikasil®IG-25of the company SIKA Services AG may be used. Only one of the following combinations (glass face- aluminum face) may be used thereby:

- Sikasil® SG-500 - Sikasil® SG-500
- Sikasil® IG-25- Sikasil® SG-500

3.4.3.6 Chemical Compatibility of materials in contact

The chemical compatibility is assessed for the following materials in contact with the structural sealant Sikasil® SG-500:

- NORTON spacer V2100 (spacer tape)
- Sika® Spacer Tape HD (spacer tape)
- Sika-Glaze®IG-5 PIB (Polyisobutylene, inner butyl sealing for insulation glass)

The chemical compatibility of all materials in contact with the structural sealant are to be assessed in the framework of the European Technical Assessment for the kit (system).

3.5 Protection against noise (BWR 5)

Not applicable

3.6 Energy economy and heat retention (BWR 6)

Essential characteristic	Performance
Thermal conductivity	0.35 W/(m K)

3.7 Sustainable use of natural resources (BWR 7)

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

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3.8 General aspects

The verification of durability is part of testing the essential characteristics. Durability is only ensured if the specifications of intended use according to Sections 3.1 to 3.8 and Annex 1 of this ETA are taken into account. SIKA should ensure that the essential information concerning the structural sealant Sikasil® SG-500 is circulated to the applier of the structural sealant.

The structural sealant Sikasil® SG-500 is fabricated in the manufacturing plant mentioned on page 1. The maximum storage life of the sealant is given in the date sheet and the labelling.

The structural sealant Sikasil® SG-500 shall be mixed at a ratio base (A) | catalyst (B) by weight of 13/1. It shall be applied between 5 and 35°C under workshop conditions. The bonding shall be tooled before the snap time has been reached, preferably within 10 minutes after the extrusion. It is important to realise that the snap time can vary in temperature and relative humidity. For consulting the technical service of SIKA should be contacted. After the snap time has been reached, no relative movement shall be induced anymore between the glass and the metal frame.

In all cases it should be checked that there is no condensation on the substrates prior to the sealant application. Water stagnation in the vicinity of structural seal shall be eliminated constructively.

For facade cleaning it is recommended to use a 1 % (approx.) solution in water of a neutral detergent with pH-value of 7 approximately.

Nevertheless, the assessment of the facade cleaning product shall be done within the framework of the European Technical Assessment (ETA) for the kit in order to check that those cleaning agents do not affect other kit products (gaskets, weather sealant, etc).

The whole kit, respectively the facade system, in which the structural sealant is used, will have to be verified. For this purpose a complementary European Technical Assessment for the kit according ETAG 002 and an associated control plan are required. In the European Technical Assessment of the kit additional adhesion surfaces to the list in Annex 1 as well as additional components of the kit, such as mechanical devices, should be assessed and the essential controls should be defined.

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List of suitable substrates for structural adhesion surfaces

1 Glass products

Float glass according to EN 572-2

2 Glass with inorganic coatings according to ETAG 002-1, Section 5.2.3.3 and according to EN 1096 (class A, B and S)

Glas Trösch

Float glass with coating Sunstop Silber 20
Sunstop Silber 12
Sunstop ESG neutral 50

AGC Glass Europe

Stopsol SS clear

Pilkington, Germany

K-Glass

Saint-Gobain Glass

COOL-Lite TS 120
COOL-Lite TB 140
COOL-Lite SS 108
COOL-Lite SN 150
COOL-Lite SC 114

Guardian Europe

SunGuard® Solar Silver Grey 32
SunGuard® Solar Light Blue 52

3 Enamelled Glass

For the glass matrix (Fritte) the products and the colours of the following manufacturers are suitable.

Ferro AG, Frankfurt a. M., Germany

Glass ceramic with glass matrix (Fritte) collection 140 (Group zinc-boron-silicate), all various colours

Johnson-Matthey, Maastricht, Netherlands

Glass ceramic, white colour Nr. 75079

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4 Enamelled glass with inorganic coating

Guardian Europe

SunGuard® Solar Silver Grey 32 with ceramic coating collection 140, Ferro AG
SunGuard® Solar Light Blue 52 with ceramic coating collection 140, Ferro AG
SunGuard® Solar Neutral 67 with ceramic coating collection 140, Ferro AG
SunGuard® Solar Neutral 60 with ceramic coating collection 140, Ferro AG
SunGuard® Solar RD 60 with ceramic coating collection 140, Ferro AG
SunGuard® Solar Pewter 30 with ceramic coating collection 140, Ferro AG
SunGuard® Solar Royal Blue 20 with ceramic coating collection 140, Ferro AG
SunGuard® Solar Silver 20 with ceramic coating collection 140, Ferro AG
SunGuard® Solar Silver 10 with ceramic coating collection 140, Ferro AG
SunGuard® Solar Silver 08 with ceramic coating collection 140, Ferro AG

5 Anodised aluminium

Adhesion surfaces which are anodised in one of the following workshops are suitable for bonding with Sikasil® SG-500. The anodising process has to be specified and in conformity with the process deposited with Deutsches Institut für Bautechnik.

Anodising by Konigsdorf Oberflächentechnik GmbH, Wolfhagen, Germany

Process KONigsdorf-HL1, all colours between E6/CO and E6/C35

Anodising by HD Wahl GmbH, Jettingen-Scheppach, Germany

Process HD-Wahi-HL2, all colours between E6/CO and E6/C35

Anodising by BWB- Bürox AG, Buren a.A., Switzerland

Process BWB-HL3, colour: E6/CO

Anodising by BWB-Altenrhein AG, Altenrhein, Switzerland

Process BWB-HL4, colour: E6/CO

Anodising by Gerhard Gotta GmbH & Co. KG, Rödermark, Germany

Process Gotta-HLS, colour: E6/CO

Anodising by König Metallveredelung GmbH, Lauchringen, Germany

Process König-HL6, all colours between E6/CO and E6/C35

Anodising by Gartner Extrusion GmbH, Gundelfingen, Germany

Process Gartner-HL7, colour: E6/CO

Anodising by AluralLummen NV, Lummen, Belgium

Process Alural-HL8, E6/CO

6 Stainless steel

High-grade steel, material N° 1.4571 , ground, grain 180

High-grade steel, material N° 1.4301 2B, silk-mat

High-grade steel, material N° 1.4301 2R, mirror-bright

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Indications for reaction to fire and for design calculation**1 Reaction to fire**

Reaction to fire for Germany: not easily flammable (B1) according DIN 4102.

2 Design calculation

The calculation of the structural bond should be in compliance with the additional provisions of the European Technical Assessment of the structural sealant glazing kit according ETAG 002, of which the structural sealant is one part.

For the calculation of the structural bond the total safety factor $\gamma_{tot} = 6.0$ is recommended and for permanent loads a creep factor of 10. The following values for calculation result from this:

Design stress in tension: $\sigma_{des} = 0.14$ MPa

Design stress in dynamic shear: $\tau_{des} = 0.105$ MPa

Design stress in static shear: $\tau_{\infty} := 0.0105$ MPa

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**8 APPROPRIATE TECHNICAL DOCUMENTATION AND/OR -
SPECIFIC TECHNICAL DOCUMENTATION**

The performance of the product identified above is in conformity with the set of declared performance/s. This declaration of performance is issued, in accordance with Regulation (EU) No 305/2011, under the sole responsibility of the manufacturer identified above.

Signed for and on behalf of the manufacturer by:

Name: Stamatios Kollias
Function: TMM Industry / Sealing &
Bonding Manager
At Athens on 16 April 2019



Name: Spyros Hatzifotis
Function: Managing Director

At Athens on 16 April 2019




End of information as required by Regulation (EU) No 305/2011

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FULL CE MARKING

 03
Sika Services AG, Zurich, Switzerland
15754339
ETAG 002 Part 1 Edition November 1999 (Revised March 2012) used as EAD
Notified Body 0757
Structural sealant for use in structural sealant glazing kits

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

Indications for reaction to fire and for design calculation see Annex 2.

3.1 Mechanical resistance and stability (BWR 1)

Requirements with respect to the mechanical resistance and stability of non-load bearing parts of the works are not included in this Essential requirement but are under the Essential Requirement safety in use, Section 3.4.

3.2 Safety in case of fire (BWR 2)

Essential characteristic	Performance
Reaction to fire	Class F (no performance determined)

The resistance to fire shall be assessed within the framework of the European Technical Assessment for the kit.

3.3 Hygiene, health and the environment (BWR 3)

Contents and/or release of dangerous substances:

The chemical composition of the structural sealant has to be in compliance with the composition deposited at the Technical Assessment Body (DIBt).

The structural sealant does not contain or release dangerous substances according to EOTA TR034 (version April 2014), except WOC, VOC, SVOC - no performance determined. Within the scope of this European Technical Assessment there may be other requirements applicable to the product (e.g. due to national laws, regulations and administrative provisions).

These requirements need also to be complied with if applicable.

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3.4 Safety and accessibility in use (BWR 4)

3.4.1 Essential characteristics for the structural bond according ETAG 002-1

Essential characteristic	Performance
Characteristic stress at rupture -tension $R_{u,5}$	0.84 MPa
Characteristic stress at rupture- dynamic shear $R_{u,s}$	0.63 MPa
Modulus of elasticity in tension or compression tangential to the origin E_0	1.5 MPa
Modulus of elasticity in shear tangential to the origin G_0	0.5 MPa
Working time (at 23°C, 50% R.H.)	20 minutes
Tack-free time (at 23°C, 50% R.H.)	120 to 240 minutes
Time before transport of the bonded frame*	7 days

* An earlier transportation on work site is possible if the following two conditions are respected (see ETAG 002-1 Table 10 Checks during the production): The tested H-samples give the following result: Rupture 100% cohesive and breaking stress ≥ 0.7 MPa.

3.4.2 Structural sealant - identification characteristics

Test	ETAG 002-1 reference	Result
Specific mass (mixed at 13/1 ratio)	5.2.1.1	$V_{\text{mean}} = 1.36 \pm 0.025 \text{ g/cm}^3$
Hardness Shore A	5.2.1.2	Mean of 39 (minimum of 34)
Thermogravimetric analysis	5.2.1.3	Curve kept in the technical file of the European Technical Assessment
Colour	5.2.1.4	Black colour

This European Technical Assessment is issued for the structural sealant Sikasil® SG-500 on the basis of agreed data/information, deposited with the DIBt, which identifies the product that has been assessed and judged. Changes to the product/production process, which could result in the deposited data/information being incorrect, should be notified to the DIBt before the changes are introduced. The DIBt will decide whether or not such changes affect the European Technical Assessment and consequently the validity of the CE-marking on the basis of the European Technical Assessment and if so whether further assessment/alterations of the European Technical Assessment shall be necessary.

3.4.3 Complementary products for preparing the structural seal adhesion surface

The characteristic values according section 3.4.1 apply, provided that the adhesion surfaces for the structural bond are in accordance with ETAG 002-1, Section 2.1. The following specifications as well as Annex 1 shall be respected.

3.4.3.1 Enamelled glass as adhesion surface

The coloured pigment made of mineral material may not exceed 25 Mol-% before ceramic penetration. The surface property after penetration should meet the following conditions and for this an inspection certificate 3.1 according EN 102042 is required from the glass producer:

Minimal scratch hardness according to EN ISO 1518-1³: 16 N

Porosity according to ASTM C 1048⁴: no porosity

Minimal gloss level according to DIN 67530⁶ measuring a recess of 60: 20

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3.4.3.2 Anodised aluminium as adhesion surface

In Annex 1 manufacturers and their procedures for anodisation are listed. In the context of issuing this European Technical Assessment these kind of anodised surfaces had been assessed. The alloys of aluminium for these types of application are alloys EN AW 6060 state T66 or EN AW 6063 state T66 according to EN 755-2⁶.

3.4.3.3 Stainless steel as adhesion surface

Stainless steel material shall be austenitic alloy. Only the tested surface finish can be actually used in practice. During the process of issuing this European Technical Assessment the stainless steel materials listed in Annex 1 are assessed for bonding with Sikasil®SG-500.

3.4.3.4 Adhesion surface preparation

The following products have to be used as pretreatment of the adhesion surfaces:

Cleaning products:	Sika Cleaner G&M Sika Cleaner P
Activator:	Sika Aktivator 205 Sika Aktivator
Primer:	Sika Promer-790 Sika Primer-210

The data sheets of these products are deposited with Deutsches Institut für Bautechnik.

The pretreatment methods for the adhesion surfaces according Annex 1 should be in compliance with the deposited test reports. The structural sealant applier gets this information from SIKA Services AG. During the factory production control the applier of the structural sealant should produce and test specimen with original composition that means including pretreatment of the surfaces according the control plan 7 of the respective European Technical Assessment of the kit.

3.4.3.5 Stepped insulated glass units

For the manufacture of stepped insulating glass units the adhesion surface may be coated - before the actual sealing - with a (1.5 ± 0.5) mm thick sealant layer according to the method deposited with Deutsches Institut für Bautechnik. For the coating the structural sealant Sikasil®SG-500 as well as Sikasil®IG-25 of the company SIKA Services AG may be used. Only one of the following combinations (glass face- aluminum face) may be used thereby:

- Sikasil® SG-500 - Sikasil® SG-500
- Sikasil® IG-25- Sikasil® SG-500

3.4.3.6 Chemical Compatibility of materials in contact

The chemical compatibility is assessed for the following materials in contact with the structural sealant Sikasil® SG-500:

- NORTON spacer V2100 (spacer tape)
- Sika® Spacer Tape HD (spacer tape)
- Sika-Glaze®IG-5 PIB (Polyisobutylene, inner butyl sealing for insulation glass)

The chemical compatibility of all materials in contact with the structural sealant are to be assessed in the framework of the European Technical Assessment for the kit (system).

3.5 Protection against noise (BWR 5)

Not applicable

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3.6 Energy economy and heat retention (BWR 6)

Essential characteristic	Performance
Thermal conductivity	0.35 W/(m K)

3.7 Sustainable use of natural resources (BWR 7)

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

3.8 General aspects

The verification of durability is part of testing the essential characteristics. Durability is only ensured if the specifications of intended use according to Sections 3.1 to 3.8 and Annex 1 of this ETA are taken into account. SIKA should ensure that the essential information concerning the structural sealant Sikasil® SG-500 is circulated to the applicator of the structural sealant.

The structural sealant Sikasil® SG-500 is fabricated in the manufacturing plant mentioned on page 1.

The maximum storage life of the sealant is given in the data sheet and the labelling.

The structural sealant Sikasil® SG-500 shall be mixed at a ratio base (A) | catalyst (B) by weight of 13/1. It shall be applied between 5 and 35°C under workshop conditions. The bonding shall be tooled before the snap time has been reached, preferably within 10 minutes after the extrusion. It is important to realise that the snap time can vary in temperature and relative humidity. For consulting the technical service of SIKA should be contacted. After the snap time has been reached, no relative movement shall be induced anymore between the glass and the metal frame.

In all cases it should be checked that there is no condensation on the substrates prior to the sealant application. Water stagnation in the vicinity of structural seal shall be eliminated constructively.

For facade cleaning it is recommended to use a 1 % (approx.) solution in water of a neutral detergent with pH-value of 7 approximately.

Nevertheless, the assessment of the facade cleaning product shall be done within the framework of the European Technical Assessment (ETA) for the kit in order to check that those cleaning agents do not affect other kit products (gaskets, weather sealant, etc).

The whole kit, respectively the facade system, in which the structural sealant is used, will have to be verified. For this purpose a complementary European Technical Assessment for the kit according to ETAG 002 and an associated control plan are required. In the European Technical Assessment of the kit additional adhesion surfaces to the list in Annex 1 as well as additional components of the kit, such as mechanical devices, should be assessed and the essential controls should be defined.

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List of suitable substrates for structural adhesion surfaces

1 Glass products

Float glass according to EN 572-2

2 Glass with inorganic coatings according to ETAG 002-1, Section 5.2.3.3 and according to EN 1096 (class A, B and S)

Glas Trösch

Float glass with coating Sunstop Silber 20
Sunstop Silber 12
Sunstop ESG neutral 50

AGC Glass Europe

Stopsol SS clear

Pilkington, Germany

K-Glass

Saint-Gobain Glass

COOL-Lite TS 120
COOL-Lite TB 140
COOL-Lite SS 108
COOL-Lite SN 150
COOL-Lite SC 114

Guardian Europe

SunGuard® Solar Silver Grey 32
SunGuard® Solar Light Blue 52

3 Enamelled Glass

For the glass matrix (Fritte) the products and the colours of the following manufacturers are suitable.

Ferro AG, Frankfurt a. M., Germany

Glass ceramic with glass matrix (Fritte) collection 140 (Group zinc-boron-silicate), all various colours

Johnson-Matthey, Maastricht, Netherlands

Glass ceramic, white colour Nr. 75079

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4 Enamelled glass with inorganic coating

Guardian Europe

SunGuard® Solar Silver Grey 32 with ceramic coating collection 140, Ferro AG
SunGuard® Solar Light Blue 52 with ceramic coating collection 140, Ferro AG
SunGuard® Solar Neutral 67 with ceramic coating collection 140, Ferro AG
SunGuard® Solar Neutral 60 with ceramic coating collection 140, Ferro AG
SunGuard® Solar RD 60 with ceramic coating collection 140, Ferro AG
SunGuard® Solar Pewter 30 with ceramic coating collection 140, Ferro AG
SunGuard® Solar Royal Blue 20 with ceramic coating collection 140, Ferro AG
SunGuard® Solar Silver 20 with ceramic coating collection 140, Ferro AG
SunGuard® Solar Silver 10 with ceramic coating collection 140, Ferro AG
SunGuard® Solar Silver 08 with ceramic coating collection 140, Ferro AG

5 Anodised aluminium

Adhesion surfaces which are anodised in one of the following workshops are suitable for bonding with Sikasil® SG-500. The anodising process has to be specified and in conformity with the process deposited with Deutsches Institut für Bautechnik.

Anodising by Konigsdorf Oberflächentechnik GmbH, Wolfhagen, Germany

Process KOnigsdorf-HL1, all colours between E6/CO and E6/C35

Anodising by HD Wahl GmbH, Jettingen-Scheppach, Germany

Process HD-Wahi-HL2, all colours between E6/CO and E6/C35

Anodising by BWB- Bürox AG, Buren a.A., Switzerland

Process BWB-HL3, colour: E6/CO

Anodising by BWB-Altenrhein AG, Altenrhein, Switzerland

Process BWB-HL4, colour: E6/CO

Anodising by Gerhard Gotta GmbH & Co. KG, Rödermark, Germany

Process Gotta-HLS, colour: E6/CO

Anodising by König Metallveredelung GmbH, Lauchringen, Germany

Process König-HL6, all colours between E6/CO and E6/C35

Anodising by Gartner Extrusion GmbH, Gundelfingen, Germany

Process Gartner-HL7, colour: E6/CO

Anodising by AluralLummen NV, Lummen, Belgium

Process Alural-HL8, E6/CO

6 Stainless steel

High-grade steel, material N° 1.4571 , ground, grain 180
High-grade steel, material N° 1.4301 2B, silk-mat
High-grade steel, material N° 1.4301 2R, mirror-bright

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Indications for reaction to fire and for design calculation**1 Reaction to fire**

Reaction to fire for Germany: not easily flammable (B1) according DIN 4102.

2 Design calculation

The calculation of the structural bond should be in compliance with the additional provisions of the European Technical Assessment of the structural sealant glazing kit according ETAG 002, of which the structural sealant is one part.

For the calculation of the structural bond the total safety factor $\gamma_{tot} = 6.0$ is recommended and for permanent loads a creep factor of 10. The following values for calculation result from this:

Design stress in tension: $\sigma_{des} = 0.14$ MPa

Design stress in dynamic shear: $\tau_{des} = 0.105$ MPa

Design stress in static shear: $\tau_{\infty} := 0.0105$ MPa

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CE MARKING TO BE PLACED ON THE LABEL

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Sika Services AG, Zurich, Switzerland
15754339
ETAG 002 Part 1 Edition November 1999 (Revised March 2012) used as EAD
Notified Body 0757
Structural sealant for use in structural sealant glazing kits
For details see accompanying documents
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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.

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