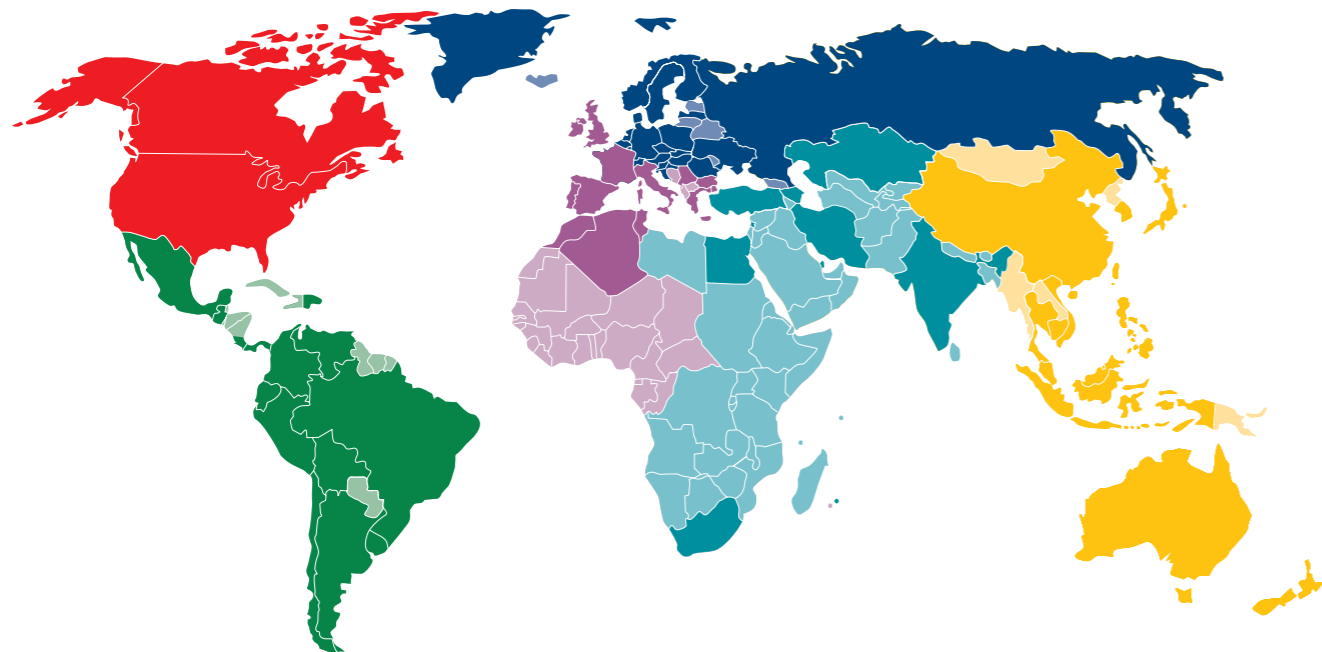


Sika Worldwide



Sika is a globally active company supplying the specialty chemicals markets. It is a leader in processing materials used in sealing, bonding, damping, reinforcing and protecting load-bearing structures in construction (buildings and infrastructure construction) and in industry (vehicle, building component and equipment production).

Sika's product lines feature high-quality concrete admixtures, specialty mortars, sealants and adhesives, damping and reinforcing materials, structural strengthening systems, industrial flooring and membranes. Subsidiaries in more than 70 countries worldwide and approximately 13,000 employees link customers directly to Sika.

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Front cover: Facade by Yuanda, Photo by: W. Wagner
Page 2, 3: Facade by Josef Gartner GmbH, Photo by: Gardin & Mazzoli

Our most current General Sales Conditions shall apply. Please consult the most current local Product Data Sheet prior to any use.

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Datum - Nummer



Industry

Sika Facade Systems Sikasil® Product Overview Engineering Silicones for Facades



Complete System Program

Sikasil® silicone sealants have been specially developed for challenging applications on glass, metal and natural stone facades. They include **Sikasil**® **SG** products for structural glazing, **Sikasil**® **IG** for insulating glass units and **Sikasil**® **WS** for weatherseals. The professional product range is rounded off with compatible **Sika**® accessories: spacer tapes, primers, substrate cleaners and machine cleaners. All the products are perfectly matched to one another.

This product overview will help you find the ideal technical solution and a perfect colour match for your facade construction needs. Please also make use of our product service. We can ensure that all the products you use for the facade are compatible with our sealants. If you need a warranty for your project, we would be pleased to provide one after examining the details of laboratory tests in our Facade Competence Centres.

For further compatible products for facades, e.g. **Sika**® Membrane System or **SikaTack**® Panel System, please consult our brochure «Solutions for Sealing and Bonding in Facades» or browse through our website www.sika.com.

Sikasil® Silicone Sealants: System Solutions for Glass, Metal and Natural Stone Constructions

Structural Glazing with Sikasil®

For on-site structural glazing applications, e.g. repair glazing, or small jobs of factory application, Sika offers the one-part silicone sealants **Sikasil**® **SG-18** and **Sikasil**® **SG-20** with high UV and weathering resistance. **Sikasil**® **SG-20** is additionally characterized by extremely high mechanical strength and excellent bonding. **Sikasil**® **SG-500** is preferred for machine application; it is a fast-curing silicone sealant with unrivalled resistance to UV and weathering. The easiest way to find the best silicone sealant for your application is to take advantage of the technical service offered by the Sika Facade Competence Centres.

Sikasil® for Insulating Glass

Sikasil® **IG-25** is a two-part silicone sealant developed for bonding multipane insulating glass units in curtain walls. It combines high mechanical strength and good inherent bonding strength with excellent resistance to weathering and UV. With the ultrahigh modulus secondary sealant **Sikasil**® **IG-25 HM** it is even possible to produce IG units with inert-gas filling with a service life of more than 30 years.

Sikasil® Weatherseals

Sika offers a new sealant for protecting movement joints against the elements: **Sikasil**® **WS-605 S** with exceptional flexibility and excellent adhesion to facade materials and even non-staining properties to glass, metals and some types of natural stone.

Another tried-and-tested weatherseal product is **Sikasil**® **WS-305**, which ensures excellent bond strength and weathering resistance.

Sikasil® **WS-355** is formulated to meet the specific requirements of natural stone facades. This ready-to-use sealant does not stain the edges of natural stone joints and is not corrosive to metals. All products are available in a large range of colours. We can also supply nonstandard colours on request. Please take into account the special conditions when ordering non-standard colours.

Sikasil® for Fire Protection

Sikasil® **FS-665** is a fire protection sealant designed for sealing, bonding and repair applications in the construction sector. This flame-retarding sealant can also be used on alkaline substrates such as concrete and mortar, and is therefore suitable for expansion joints that have to satisfy stringent flame-retardant requirements. **Sikasil**® **FS-665** is characterized by fire resistance for a very long duration. For horizontal floor joints the self-levelling **Sikasil**® **FS-665 SL** is also available.

Sikasil® for Glazing Applications

Sikasil® **GS-621** is the right solution when high mechanical strength is required in total vision glazing (TVG) and other high-performance glazing applications.

Sikasil® Engineering Silicones: Technical Data

Characteristic Properties of Sikasil® Silicone Sealants

Sikasil®		SG-18	SG-20	SG-500	GS-621	IG-25	IG-25 HM	WS-305	WS-355	WS-605 S	FS-665	FS-665 SL
Description		structural glazing	structural glazing SJ technology ¹⁾	structural glazing	glazing TVG	insulating glass air-filled	insulating glass inert-gas-filled	curtain wall weatherseal	weatherseal non-staining to stones	curtain wall weatherseal ²⁾ non-staining to glass/metal	fire protection	fire protection self-levelling
Curing system		1-part neutral	1-part neutral	2-part neutral	1-part acidic	2-part neutral	2-part neutral	1-part neutral	1-part neutral	1-part neutral	1-part neutral	1-part neutral
Joint movement capability [%]	ISO 9047 ASTM C920	±12.5 25	±12.5 50	±12.5 25	±20 ±25	±12.5 25	±12.5 25	±25 ±50	±25 ±50	±25 ±50	±25 ±25	±25 +100 / -50
Skin-over time / pot life [min] (23°C/50% rel. humidity)		30	15	60	10	35	110	20	20	25	15	45
Hardness, Shore A	ISO 868	44	39	45	22	45	60	20	20	20	25	15
Modulus at 100% elongation [N/mm ² / psi]	ISO 37, rod S2	1.1 / 159	0.90 / 130	1.10	0.60 / 87	1.40 / 200	1.70 / 247	0.40 / 58	0.30 / 43	0.30 / 43	0.40 / 58	0.20 / 26
Tensile strength [N/mm ² / psi]	ISO 37, rod S2	1.80 / 260	2.20 / 320	2.20 / 320	1.60 / 232	2.30 / 334	2.30 / 334	0.90 / 130	1.00 / 145	1.00 / 145	1.20 / 174	0.70 / 101
Elongation at break [%]	ISO 37, rod S2	350	450	300	450	200	150	700	800	800	700	750
Tear strength [N/mm]	ISO 34-C	6.0	7.0	6.0	5.0	6.0	5.0	4.0	4.0	4.0	4.0	3.0
Admissible tensile strength [N/mm ² / psi] (Design factor)		0.17 / 25	0.17 / 25	0.14 / 20		0.14 / 20	0.14 / 20					
Permanently elastic [°C]		-40 to +150	-40 to +150	-40 to +150	-40 to +180	-40 to +150	-40 to +150	-40 to +150	-40 to +150	-40 to +150	-40 to +150	-40 to +150
Compatible with metals		yes	yes	yes	no	yes	yes	yes	yes	yes	yes	yes
polycarbonate		no	yes	yes	yes	yes	no	no	no	yes	yes	yes
polyacrylate		no	yes	no	no	no	no	no	no	no	no	no
alkaline substrates		yes	yes	yes	no	yes	yes	yes	yes	yes	yes	yes
Shelf life [months] (when kept below 25 °C)		12	9	12	18	12	12	12	12	12	12	12
Certificates / Approvals / Standards		EOTA ETAG No. 002 - 2001	EOTA ETAG No. 002 - 2001 ETA/CE mark	EOTA ETAG No. 002 - 2001 ETA/CE mark	ISO 11600 G 20 LM	EOTA ETAG No. 002 - 2001 ETA/CE mark	EOTA ETAG No. 002 - 2001 ETA/CE mark	ISO 11600 F-G 25 LM	ISO 11600 F-G 25 LM	ISO 11600 F-G 25 LM	ISO 11600 F-G 25 LM	ISO 11600 F-G 25 LM
		EN 13022	EN 13022	EN 13022	ASTM C920	EN 1279-2, -4	EN 1279-2, -3, -4	ASTM C920	ASTM C1248	ASTM C1248	EN 11925-2	EN 11925-2
		ASTM C1135	ASTM C1135	ASTM C1135	TT-S-001543 A	EN 15434	CEKAL	TT-S-001543 A	ASTM C920	ASTM C920	DIN 4102-B1	DIN 4102-B1
		ASTM C1184	ASTM C1184	ASTM C1184	TT-S-00230 C	CEKAL	SNJF VI-VEC	TT-S-00230 C	TT-S-001543 A	TT-S-001543 A	BS 476 part 20	BS 476 part 20
			SNJF-VEC	SNJF-VEC		SNJF VI-VEC		DIN 18540	TT-S-00230 C	TT-S-00230 C	ASTM C920	ASTM C920
			EN 11925-2	SNJF VI-VEC		GB16776 - 2005		DIN 18545		DIN 18540	TT S-001543 A	TT-S-001543 A
			DIN 4102-B1	EN 11925-2				AENOR		DIN 18545	TT-S-00230 C	TT-S-00230 C
				DIN 4102-B1								
				GB16776-2005								

1) Slim Joint technology

2) for characteristic properties of transparent **Sikasil®WS-605 S** see Product Data Sheet

Sikasil® Engineering Silicones: Colours

	Sikasil®	SG-18	SG-20	SG-500	GS-621	IG-25	IG-25 HM	WS-305	WS-355	WS-605 S	FS-665	FS-665 SL
Transparent					■			■		■		
White S2								■		■		
Beige S1								■	■	■		
Ivory 02										■		
Grey S1								■		■	■	■
Grey S3								■	■	■		
Grey S4								■		■		
Grey S6			■	■		■				■		
Black S1					■							
Black 01		■	■	■		■	■	■	■	■	■	■
Bronze S2										■		

We don't accept liability for adhesion and gloss based on this overview, since the printed colours may differ from the colours of the original silicone sealant. You can obtain suitable samples on request from your regional sales manager.

Sikasil® Engineering Silicones: Packaging Units

Sikasil®	SG-18	SG-20	SG-500	GS-621	IG-25	IG-25 HM	WS-305	WS-355	WS-605 S	FS-665	FS-665 SL
Cartridge	■	■	■	■			■	■	■	■	■
Foilpack	■	■		■			■	■	■	■	
Pail	■	■									■
Drum	■	■							■		
Kit (drum+pail)			■		■	■					

Sikasil® Accessory Products: Packaging Units

	Sika® Cleaner P	Sika® Cleaner-205	Sika® Primer-210	Sika® Mixer Cleaner	Sika® Spacer Tape HD
0.25 litre bottle		■	■		Information about dimensions can be obtained from your sales manager.
1 litre bottle	■	■	■		
5 litre can	■				
25 litre pail				■	
200 litre drum				■	