



AUTHORIZED SIKA DISTRIBUTOR PRODUCT SELECTOR GUIDE FOR MINERAL GLASS

MINERAL GLASS BONDING AND SEALING

PART 1: NON-UV-EXPOSED APPLICATIONS

Sika offers a wide range of technologies and products for bonding mineral glass and glazing applications. These could be in windows, facades, doors, windshields, equipment housings, containers or building elements. Glass could be ceramic or primer coated both for aesthetics and to protect bond line from UV rays. Sika solutions with no UV-exposure are indicated in this section. This guide provides general selector guidance. Always consult the most actual Product Data Sheets prior to product usage or consult your Sika contact.

YOUR APPLICATION	Elastic joint					Rigid joint		
	Non UV-exposed bond line						Weathering-protected areas	
	Generic sealing and bonding	Moderate mechanical strength	High mechanical strength	Fast curing	Flame retardant	Fast curing	Excellent impact resistance	
SIKA SOLUTION	Sikaflex®-221	Sikaflex®-252	Sikaflex®-260 N	Sikaflex®-265	Sikaflex®-852 FR	SikaFast®-5211 NT	SikaFast®-5411 NT	
Chemistry	1-component polyurethane	1-component polyurethane	1-component polyurethane	1-component polyurethane	1-component polyurethane	2-component acrylic	2-component acrylic	
Color	White, grey, black, brown	White, black	Black	Black	Black, mahogany	Grey	Grey	
Shore hardness	40 A	50 A	50 A	50 A	50 A	90 A	90 A	
Mix ratio	-	-	-	100:2	-	10:1	10:1	
Open time / pot life (min) ¹	45	35	30	10 - 20	-	3	5	
Tack free time (min)	60	40	40	45	75	9	15	
Tensile strength (MPa)	1.8	3	7	6	2.5	10	16	
Elongation at break (%)	500	400	300	450	300	200	50	
Service temperature (°C)	-40 to +90	-40 to +90	-40 to +90	-40 to +90	-40 to +90	-40 to +80	-40 to +80	

PRODUCT DESCRIPTION

Sikaflex®-221

is a well-known brand found for years in numerous applications. Sikaflex®-221 is suitable for elastic and durable sealing joints. It adheres to many substrates such as metals, paintings, wood, ceramics and plastics.

Sikaflex®-252

is a high-performance adhesive for elastic and durable assembly jobs that are exposed to high and dynamic stress. Sikaflex®-252 adheres to many substrates such as metals, paintings, wood, ceramics and plastics.

Sikaflex®-260 N

is suitable for dynamically highly stressed bonding applications. Do not use on stress cracking sensitive substrates.

Sikaflex®-265

is designed for direct glazing, general bonding and sealing applications. Good tooling properties and the enhanced weathering resistance allow using it for exposed joints. To accelerate curing, it can be used in conjunction with Sika® Booster Paste.

Sikaflex®-852 FR

is a multi-purpose, non-sag, 1-C polyurethane adhesive and sealant with good fire-retardant properties, which cures on exposure to atmospheric moisture to form a durable elastomer. Sikaflex®-852 FR is manufactured in accordance with ISO 9001 / 14001 quality assurance system and the responsible care program.

SikaFast®-5211 NT

is a fast curing, flexibilised structural adhesive, designed to replace mechanical fixings such as rivets, screws or welding. Suitable for high strength fastening of concealed joints and exhibits excellent adhesion on different types of substrates including top coats, plastics, glass, wood, etc.

SikaFast®-5411 NT

is a fast curing, structural adhesive designed to replace mechanical fixings such as rivets, screws or welding. It is suitable for high strength fastening of concealed joints and exhibits excellent adhesion on different types of substrates including top coats, plastics, metals, glass, wood, etc. SikaFast®-5411 NT has increased performance under elevated temperatures compared to SikaFast®-5200 NT series.

¹Equal to skin time for 1-component and snap time for 2-component technology

*For Sikaflex® grades 2xx and 5xx, please refer to Sika Pretreatment Chart.

MINERAL GLASS BONDING AND SEALING

PART 2: UV-EXPOSED AND WEATHERING-RESISTANT SOLUTIONS

Sika offers a wide range of technologies and products for bonding and sealing mineral glass and glazing applications. These could be in windows, facades, doors, windshields, equipment housings, containers or building elements. The bond line could be partially or fully UV-exposed. Sika solutions with UV exposure and weathering resistance are indicated in the table below. This guide provides general selector guidance. Always consult the most actual Product Data Sheets prior to product usage or consult your Sika contact.

YOUR APPLICATION	Elastic joint					
	UV-exposed sealing		Weathering-resistant joint		UV-exposed bonding	
	Weatherproof sealing	Medium strength	High mechanical strength	Easy usage	Long open time	Fast curing
SIKA SOLUTION	Sikasil® WS-605 S	Sikaflex®-522	Sikaflex®-551	Sikasil® AS-70	Sikasil® SG-500	Sikasil® AS-785
Chemistry	1-component silicone	1-component STP	1-component STP	1-component silicone	2-component silicone	2-component silicone
Color	Black, grey, white	White	White, black	Black, grey, white	Black, grey	Black, grey, white
Shore hardness	20 A	35 A	45 A	39 A	45 A	45 A
Mix ratio	-	-	-	-	10:1	10:1
Open time / pot life (min) ¹	25	30	25	15	50	12
Tack free time (min)	120	-	-	150	240	40
Tensile strength (MPa)	1	1.5	2.5	2.4	2.2	2
Elongation at break (%)	800	350	600	500	300	250
Service temperature (°C)	-40 to +150	-40 to +90	-50 to +80	-40 to +180	-40 to +150	-40 to +150

PRODUCT DESCRIPTION

Sikasil® WS-605 S

can be used for weatherproofing and sealing applications where durability under severe conditions is required. It is particularly suited as a weather seal for structural glazing, curtain walling and windows.

Sikaflex®-522

adheres well to a wide variety of substrates and is suitable for elastic sealing and bonding. Suitable substrate materials include timber, metals, metal primers and paint coatings (2-C systems), ceramic materials and plastics. Low emission, meets VDI 6022 and is approved for incidental food contact.

Sikaflex®-551

is a very low emission assembly adhesive that not only exceeds common EHS standards but it is also equipped with fungicidal which inhibits the growth of microorganisms in warm and humid environments. It is suitable for elastic, vibration-resistant joint seals and for a wide variety of interior and exterior sealing applications.

Sikasil® AS-70

can be used for structural sealant glazing in facades, windows or other building elements. It is perfectly suitable for bonding of photovoltaic and solar thermal modules and other high-demanding industrial applications.

Sikasil® SG-500

is a 2-component, high-modulus, neutral curing structural silicone adhesive mainly used for structural glazing applications, bonding of solar modules and other high-demanding industrial applications, meets requirements of: - EOTA ETAG 002, EN 13022 and ASTM C 1184 - SNJF-VEC / VI-VEC recognized - Fire rated (EN 11925-2 / DIN 4102-B1) structural silicone adhesive according to ETAG 002, DoP 91596073.

Sikasil® AS-785

is a 2-component, non-corrosive, fast-curing silicone sealant and adhesive, especially designed for automated bonding of structural adhesive joints. It is further suitable for high demanding industrial bonding and sealing applications like in the Solar and White Goods business, meets: - EOTA ETAG 002 - UL® certified: UL94 V-1, QOQW2 (-40 °C - 105 °C).

¹Equal to skin time for 1-component and snap time for 2-component technology

*For Sikaflex® grades 2xx and 5xx, please refer to Sika Pretreatment Chart.

APPLICATION EXAMPLES

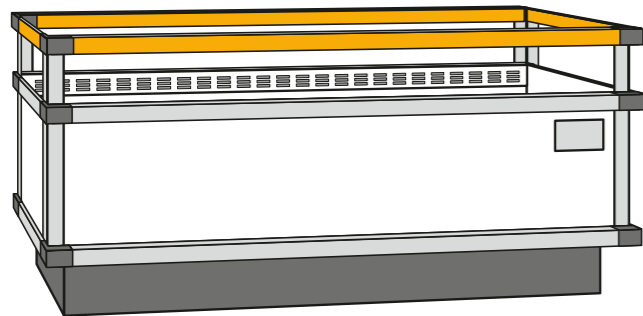
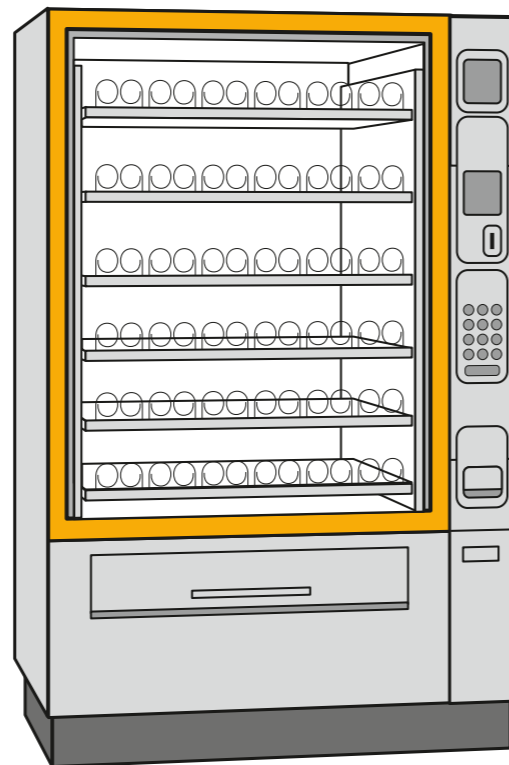
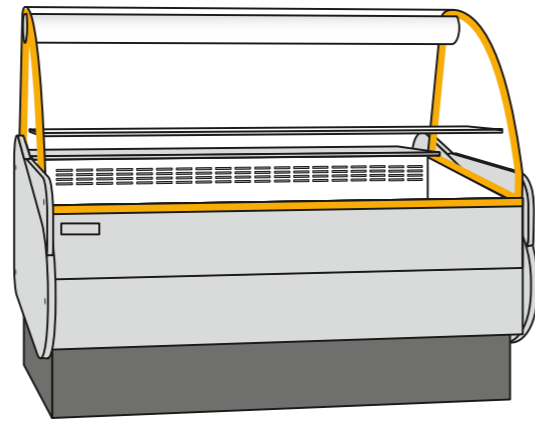
Sika technologies are suitable to bond the most common substrates used for industrial applications, offering a competitive advantage with cost-optimized and reliable solutions. Manufacturers of refrigerators and vending machines use Sika solutions to bond and perfectly seal glass doors and covers; while temperature control and food preservation are combined with aesthetics. Sikaflex® solutions fully meet all these requirements, providing structural and durable bond on glass, aluminum and stainless steel frames. Moreover, SikaFast® solutions can be used for fast fixture applications of small components such as displays, pushbuttons, plates and mounting brackets.

ADVANTAGES

- No welding process and metal buckling
- Smooth look without visible clamps or screws
- Possible use of thinner metal sheets
- Reliable and durable joints
- Easy and fast process: sealing and bonding in one step

PRODUCT FEATURES

- Structural adhesives and sealants
- Optimized both for large and short scale industrial applications
- Non-sag properties for vertical applications
- High elongation and tensile strength properties with Sikaflex®-260 N
- Gap filling and short handling time with the 2-component technology of SikaFast®-5215 NT
- Food approved solutions (indirect contact): Sikaflex®-522 and Sikaflex®-551



Structural bonding and sealing of organic glass on metal frame with **Sikaflex®-260 N**. For applications requiring food approval, **Sikaflex®-522** can be used for sealing or **Sikaflex®-551** for sealing and bonding. Reliable assembly of displays and small components in plastics and metals with **SikaFast®-5215 NT**. Body removable sealing with **SikaLastomer®-710**.



APPLICATION EXAMPLES

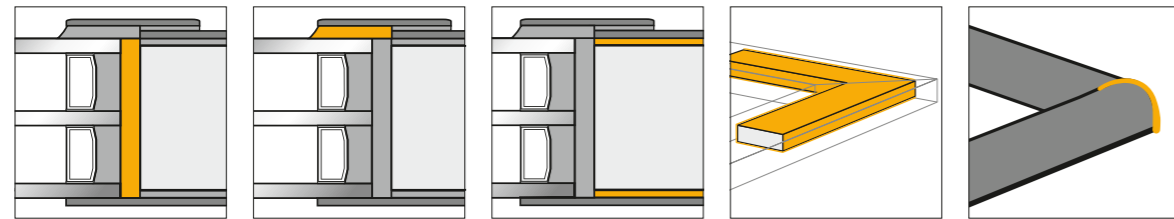
Sika technologies for production of entrance doors out of wood, PVC or aluminum are suitable for single and serial production of door panels, frames as well as side panel glazing made of various materials.

The advantages of the adhesive technology contribute particularly to:

- Modern door design
- Special sizes
- Burglary protection
- Warping stabilization
- Thermal insulation

Sika adhesives and sealants are:

- Weatherproof
- Temperature resistant
- Process optimised
- Tested by certification institutes



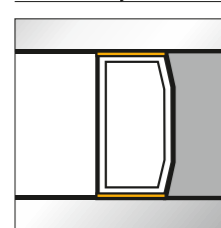
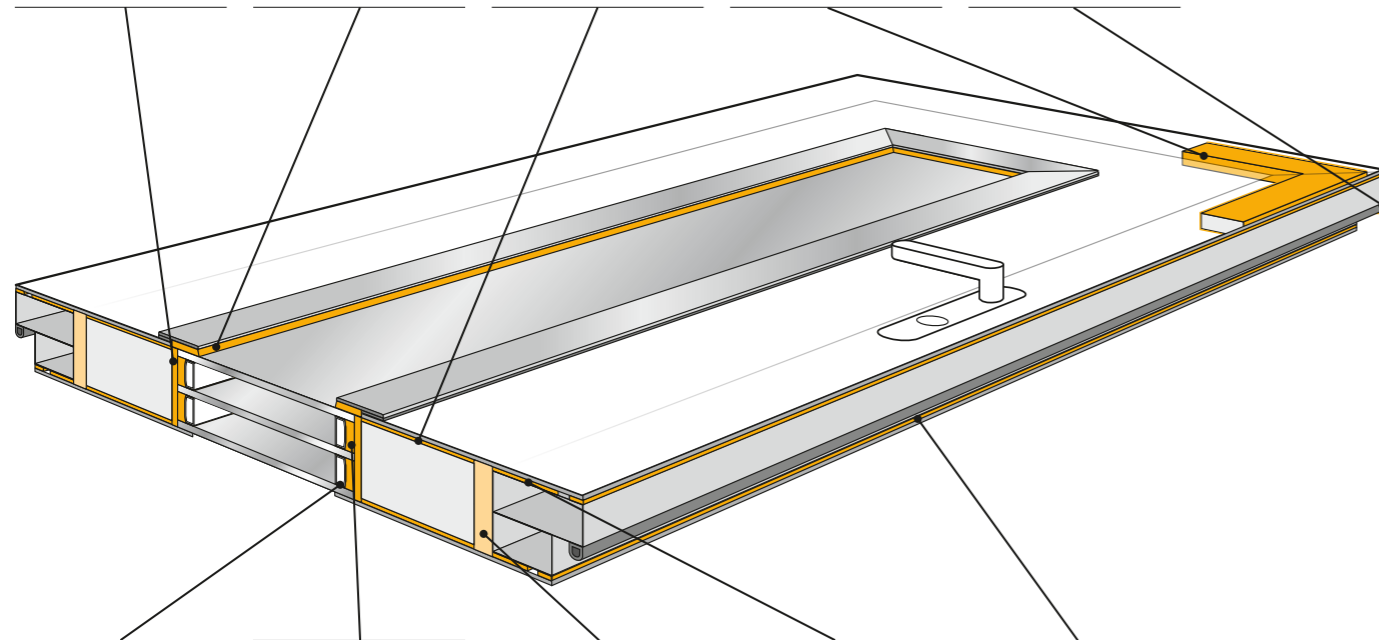
Burglary protection
Sikasil® WT-480

Glazing
Sikasil® WS-605 S

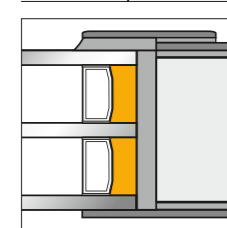
Sandwich Panel bonding
SikaForce®-7710 L35

Corner bracket bonding
SikaForce®-7900

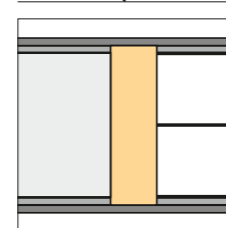
Gasket bonding
SikaLock® WT-10



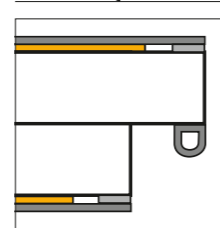
IG primary sealing
SikaGlaze® IG-5 PIB



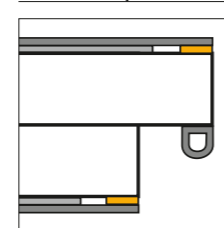
IG secondary sealing
Sikasil® IG-25 HM Plus



Thermal insulation
SikaBond® FoamFix



Frame and cover bonding
**Sikaflex®-221/-553,
Sikasil® SG-500/SG-20**



Mounting aid
Sika® Glazing Tape Prefix



GLOBAL BUT LOCAL PARTNERSHIP



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.

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



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