

Elastic silicone adhesive and sealant for secondary insulation glass edge seal, neutral cure, UV and laminated glass compatible

Application areas

Wikosil-IGS has been formulated in accordance with DIN EN 1279, Multi-pane Insulating Glass (air-filled), specifically as a material for the edge seal (secondary seal) in the manufacture of insulating glass.

The product has a wide range of applications in sealings and flexible bondings, like e.g.

- butt bondings of insulating glass units, both for overhead and vertical glazing
- window glazing
- ideal for building construction, glass construction, window manufacture, metal construction, industry

Product benefits

- compatible with conventional edge bonding materials
- low water vapour permeability
- compatible with PVB sheet and laminated safety glass (VSG)
- elastic
- neutral cross-linking (state-of-the-art NO-MEKO technology)
- good adhesion to most substrates used in the construction industry like glass, metal, wood, wood-based materials, masonry (bricking), beton etc.
- good UV, weather and ageing resistance
- no risk of corrosion
- free of shrinkage and bubbles
- high notch-rupture strength
- practically odourless
- hardly any surface soiling
- for indoor and outdoor use

Base

Neutral cross-linking, ready-to-use 1C silicone sealant; after extrusion, the product vulcanises under the influence of humidity, forming a silicone rubber that remains elastic, therefore allow silicone to evaporate unhindered.

Restrictions

For butt-jointed insulating glass, e.g. all-glass facades, consultation is required to ensure compatibility with other edge bonding materials. Not suitable for oil and bitumen-containing substrates, waxy substrates, PE, PP, PTFE (Teflon[®]). Our range of products offers you a choice.

Processing

The bonding surfaces must be sound, dry and free of dust and grease. Pre-coat absorbent and porous substrates with Wi-Primer V-02. Use Wi-Primer V-01 as a solvent-free alternative. Clean non-absorbent surfaces with Wisatyp TL 16. There is normally no need for a primer on glass and most other smooth surfaces. Check treated and non-absorbent surfaces with an adhesion test.

Follow the rules for joint dimensioning.

Minimum joint width: 4 mm, minimum joint depth: 4 mm

Maximum joint width: 25 mm, maximum joint depth: 12 mm

Joint depth	Joint width							
	4 mm	5 mm	6-7 mm	8-10 mm	12 mm	15 mm	20 mm	25 mm
4 mm								
5 mm								
6 mm								
7 mm								
8 mm								
10 mm								
12 mm								

	Optimum dimensions for moving joints
	Limit dimension for slightly moving joints
	Dimension for non-stressed joints

We recommend masking the edges of the joint with masking tape to ensure a clean and straight joint. The sealant must be sprayed in such a way that sufficient pressure is exerted on the joint flanks. In particular, make sure that no air bubbles are trapped in the joint sealing compound. Smooth the pressed-in sealant with a suitable joint filler before skin formation. For smoothing joints, our smoothing compound Wikofix GM 52 has proved its worth in practice.

We accept no liability for damage caused by the use of commercially available detergents.

The masking tape must be removed immediately after application.

In the manufacture of insulating glass

When used as a secondary edge seal in the manufacture of insulating glass, Wikosil-IGS is always combined with a primary edge seal made of butyl rubber (e.g. Wikofix-BBI), which acts as a vapour barrier. When manufacturing insulating glass, particular care must be taken to ensure that the outer corners are also completely filled with Wikosil-IGS.

To be considered when bonding

For surface bonding of non-absorbent substrates on both sides, vertical, bead-shaped application of the adhesive / sealant is recommended to ensure a sufficient supply of air humidity during cross-linking.

Density

ca. 1.25 g/cm³

Consistency

pasty, firm

Skin formation

after 5 - 10 min under normal conditions
(+25 °C, 60 % rel. humidity)

Volume shrinkage

<3 % by volume

Max. total deformation

ca. 20 % under continuous load (nach EN 15651-2)
als Randverbund bei Isolierglas max. 5 %

Setting time

ca. 3 mm on the first day, then decreasing in depth

Recoatibility


limited colour compatible (under certain conditions) in the border area

Shore A hardness

ca. 30

E-modulus 100 %

ca. 0.5 N/mm² (acc. to DIN 52455 MWT-1-A1-100)

Temperature resistance	from -50 °C until +200 °C (after complete cross-linking)
Breaking elongation	ca. 350 %
Repairing	can be repaired with the same material
Substrates	Glass, aluminium, steel, zink, non-ferrous metals, enamel, wood-based materials, treated wood, masonry (bricking), beton, plastering, brick, artificial stones, eternit, plastics commonly used in construction, e.g. solid PVC, ABS, polystyrene foam, polyester etc. For further surfaces, you will need to carry out your own tests.
Cleaning agents	Wisatyp TL 16 for cleaning non-absorbent adhesive surfaces and fresh product residues. The cured product can normally only be removed mechanically. To wash your hands, please use water and soap.
Processing temperature	from +5 °C until +40 °C
Frost resistance	until -15 °C (during transport)
Certificates / Norms	EN 15651-2: G 20 HM (glazing joints) DIN EN 1279-2 (multi-pane insulating glass, air filled) DIN EN 1279-4 (sealant for sealing the edges of double glazed windows)
Further information	 <p>You can find more information about this product (link to the product on our homepage, safety data sheet, certificates, special enquiries etc.) under the adjacent ISOPIN QR code.</p>
Item no. + Colour	IGS 4646 black (ca. RAL 7021) - cartridge à 310 ml IGS 4646.600.12 black (ca. RAL 7021) - tubular bag à 600 ml
Delivery form	carton box of 12 cartridges carton box of 12 tubular bags Further containers on request.
Shelf life	In closed original packaging, protected from direct sunlight and stored in a dry place between +15 °C and +25 °C, the official shelf life is 16 months from date of production (the printed expiry date is decisive).

Safety and disposal: Familiarise yourself with the valid Safety Data Sheets (SDS) for the products used. All applicable safety regulations and disposal instructions must be observed.

Observe: All information is based on careful examinations in the labs and our previous practical experience. They are non-committal notes. Due to the many materials that are marketed and the different processing methods, which we cannot influence, we can, of course, not assume any warranty, including under patent-law, for the result of your work. We recommend performing sufficient own tests to find out if the product meets the respective requirements. In addition, we refer to our terms and conditions of sale, delivery and payment, available at www.wisabax.ch/agb.html. © Wisabax AG - This technical data sheet replaces all older versions.

Have you noticed an unclear formulation or an error? Thank you for your feedback. In case of doubt, the German version of the technical data sheet applies.