

Insulated Glazing Sealants



Imagine enhancing productivity, improving reliability and minimizing stress with advanced silicone adhesives and sealants.

Dow Performance silicones describe the history and evolution of silicone technology, which generated a legacy of innovative and reliable products under the Dow Corning label for more than seven decades. Today that legacy continues under the DOWSIL® brand name, which encompasses more than 7,000 proven silicone products and services.

a.b.e. Construction Chemicals is the technical distributor of Dowsil sealants in Southern Africa.

Insulated glazing sealant for structural glazing, commercial & residential use

Insulated glass is a key component of modern façade construction. Insulated glass brings many benefits to curtainwall functionality. With today's high cost of energy, the thermal performance of a building façade has become very important. The use of insulated glass in façade construction allows the design profession to construct buildings with large vision areas that are aesthetically appealing as well as thermally efficient.

Dowsil® 3540 CLICK HERE



A single part, neutral cure adhesive used in extreme humidity and temperature applications. Insulated glazing incorporating speciality glass types, stepped glass or with free edges. The primary seal is typically made of polyisobutylene. It has a high green strength making it possible to handle the unit quickly and a high cure rate (4.0 mm in 24 hours) as a one component sealant. When cured it has a high modulus for a good mechanical assembly of insulated glazing.

Advantages:

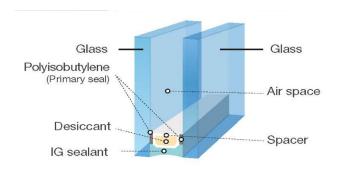
- Excellent adhesion to coated or reflective glass, aluminium or galvanized steel spacers.
- Fast cure one component technology, ideal for use at low temperature and/or low humidity in workshops.
- Minimum waste and downtime by eliminating base purging and static mixer maintenance.
- Outstanding aging properties, high level of mechanical properties, low water absorption, solvent free and non-corrosive cure.
- Silicone technology providing outstanding UV resistance.





Used in greenhouses and skylights under high sun exposure

Typical dual sealed insulated glass unit



An insulated glass unit (IGU), whether used in a structural glazing system or in a mechanically captured or frame mounted glazing system, is intended to offer the building occupant an aesthetically pleasing, thermally efficient façade element which requires minimal maintenance during the expected life of the unit. IG units consist of two or more glass panels which are separated along the perimeter by a spacer and sealant system. The cavity between the panes of glass may be filled with dry air or an inert gas. Many types of glass can be used including laminated glass, coated glass or spandrel glass. These components are selected to meet the specific coloration, reflectivity, light transmission and sound transmission requirements of the IG unit.

SILICONES, SEALANTS & ADHESIVES PRODUCT SELECTOR CLICK HERE





Insulated Glazing Sealants

Insulated glass is also used in silicone structural glazing which is a method utilizing silicone adhesive to attach glass to the structure of a building.

The performance of insulated glass in structural glazing applications is critical due to the loads, stresses and extreme environmental factors impacting the façade. For these requirements to be fulfilled, both the construction of IG units and the manufacturing of the individual components must meet very high standards of quality. From the glass preparation, accurate placing of PIB and spacer bars, to the final assembly of the insulated glass unit (IGU), quality must be consistently maintained through the implementation of recommended

application and quality control procedures.





Meet EN1279 and CEKAL requirements

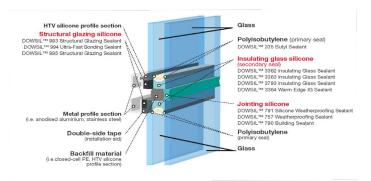
Insulated glazing sealant for structural glazing

Two part silicone sealant for use as secondary sealant in insulated glass units. This sealant has been granted a European Technical Assessment based on independent testing in accordance with the current European structural glazing quideline ETAG 002 and is appropriate for use in IG units used in structural glazing applications The product has been granted a CE label based on this approval.

Advantages:

- Outstanding adhesion to a wide range of substrates including coated and reflective glasses, aluminum and steel spacers, and a variety of plastics.
- Structural capability as secondary sealant for insulating glass units used in structural glazing.
- Low water absorption, non-corrosive cure and fast curing time.
- Excellent temperature stability: -50 °C to 150 °C.
- Very high modulus which limits the stress on the primary sealant and makes it particularly suited for gasfilled insulated glazing units.
- Outstanding resistance to ozone and ultraviolet (UV) radiation.
- Stable viscosity for A and B components, no heating required.

Standard SG detail with IG unit



The selection of the proper materials is a key element of successful IG performance. **Dow** provides high performance sealants which are specifically designed for the production of insulated glass.

Silicone gasket Spacer with desiccant Silicone setting block Polyisobutylene (primary seal) Silicone secondary seal Closed cel thylene backer materia Double-side adhesive foam tape Aluminium profil Structural silicone sealant Silicone weatherseal sealant Sealant depth Sealant width

Standard glazing in an insulated glass unit assembly

Proper mixing is **important.** When properly mixed, the sealant is uniform black, with no grey or white streaks.

Glass

Proper mixing

Insufficient mixing

Stepped insulating glass unit

Conventional insulating glass unit

Seal the Deal

Reputation, reliability and safety. These are "words to succeed by" in the professional building trades. To build that success, you need high quality, durable materials with proven performance in tough conditions. Bring the best adhesives and sealants to the job site for waterproofing, sealing, bonding, adhering, gap filling, window installation, glazing, fire protection and improved aesthetics.



We strive to innovate the advanced materials to help you gain longer lifecycles, prevent breakdowns and ensure long-term reliability and performance.

Contact us today and get a quote.



