Industry

Sikasil® IG-16

UV resistant insulating glass sealant

Typical Product Data

Chemical base	1-component silicone
Colour (CQP[1] 001-1)	Black
Cure mechanism	Moisture-curing
Cure type	Neutral
Density (uncured) (CQP 006-4)	1.48 kg/l
Non-sag properties (CQP 061-4 / ISO 7390)	2 mm
Application temperature	5 – 40°C
Skin time[2] (CQP 019-2)	25 min
Tack-free time[2] (CQP 019-1)	100 minutes
Curing speed (CQP 049-1)	See diagram 1
Shore A-hardness (CQP 023-1 / ISO 868)	45
Tensile strength (CQP 036-1 / ISO 37)	1.8 MPa
Elongation at break (CQP 036-1 / ISO 37)	300 %
Tear propagation resistance (CQP 045-1 / ISO 34)	6.0 N/mm
100% modulus (CQP 036-1 / ISO 37)	1.2 MPa
Movement accommodation capability (ASTM C 719)	± 12.5 %
Thermal resistance (CQP 513-1) 4 hours 1 hour	180 °C 220 °C 250 °C
Service temperature	-40 – 150 °C
Moisture vapor transmission rate (CQP 520-2 / ISO 12572)	15 g H_2O/m^2·24 h·2 mm
Shelf life (storage below 25 °C) (CQP 016-1) unipack drum / pail	 15 months 12 months

[1] CQP = Corporate Quality Procedure [2] 23 °C / 50 % r.h.

Description

Sikasil® IG-16 is a neutral-curing, high-modulus silicone insulating glass secondary sealant with excellent adhesion to many sub-strates.

Product Benefits

- Meets requirements of EN 1279, parts 2, 3 and 4
- Suitable for air- and gas-filled insulating glass units
- Excellent UV and weathering resistance
- Bonds well to glass as well as metal and plastics spacers
- Fast curing

Areas of Application

Sikasil® IG-16 can be used as a UV resistant secondary edge seal for the manufacturing of dual-sealed insulating glass units.
This product is suitable for profes-sional experienced users only. Tests with original substrates and conditions have to be performed to ensure adhesion and material compatibility.

Cure Mechanism

Sikasil® IG-16 cures by reaction with atmospheric moisture. The reaction thus starts at the surface and proceeds to the core of the joint. The curing speed depends on the relative humidity and the temperature (see diagram 1 below). Heating above 50 °C to speed-up the vulcanization is not advisable as it may lead to bubble formation. At low temperatures the water content of the air is lower and the curing process proceeds more slowly.

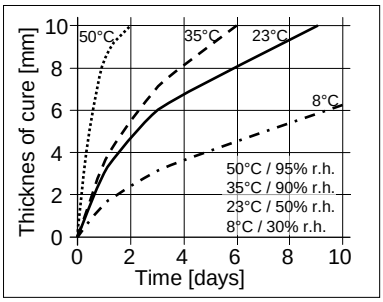

Diagram 1: Curing speed 1-C-Sikasil®

Application Limits

Most Sikasil® WS, FS, SG, IG, WT, AS and other engineering silicone sealants manufactured by Sika are compatible with each other and with SikaGlaze® IG sealants. For specific information regarding compatibility between various Sikasil® and SikaGlaze® products please contact the Technical Service Department of Sika Industry.

All other sealants have to be approved by Sika before using them in combination with Sikasil® IG-16. Where two or more different reactive sealants are used, allow the first to cure completely before applying the next.

Sikasil® SG, IG and WT sealants and adhesives may only be used in structural glazing or window bonding applications by experienced professionals and after a detailed examination and written approval of the corresponding project details by the Technical Department of Sika Industry.

The compatibility of gaskets, backer rods, setting blocks and other accessory materials with Sikasil® IG-16 must be tested in advance.

The above information is offered for general guidance only. Advice on specific applications will be given on request.

Method of Application

Surface preparation

Surfaces must be clean, dry and free from oil, grease and dust.

Advice on specific applications and surface pretreatment methods is available from the Technical Department of Sika Industry.

Application

After suitable joint and substrate preparation, Sikasil® IG-16 is gunned into place. Joints must be properly dimensioned as changes are no longer possible after construction. Basis for calculation of the necessary joint dimensions are the technical values of the adhesive and the adjacent building materials, the exposure of the building elements, their construction and size as well as external loads. Joints deeper than 15 mm should be avoided.

For more information please contact the Technical Department of Sika Industry.

Tooling and finishing

Tooling and finishing must be carried out within the skin time of the sealant or adhesive.

When tooling freshly applied Sikasil® IG-16 press the adhesive to the joint flanks to get a good wetting of the bonding surface.

Removal

Uncured Sikasil® IG-16 may be removed from tools and equipment with Sika® Remover-208 or another suitable solvent. Once cured, the material can only be removed mechanically.

Hands and exposed skin should be washed immediately using Sika® Handclean towels or a suitable industrial hand cleaner and water. Do not use solvents on skin!

Overpainting

Sikasil® IG-16 is an elastic adhesive and cannot be overpainted.

Further Information

Copies of the following publications are available on request:

- Safety Data Sheets

Packaging Information

Unipack	600 ml
Pail	28 kg
Drum	280 kg

Basis of Product Data

All technical data stated in this Product Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

Health and Safety Information

For information and advice regarding transportation, handling, storage and disposal of chemical products, users shall refer to the actual Safety Data Sheets containing physical, ecological, toxicological and other safety-related data.

Disclaimer

Further information available at:
www.sika.co.uk

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