



IGS3763

Two-Component Insulating Glass Silicone

Product Description

IGS3763 adhesive silicone is an optimized, high-modulus, neutral curing sealant for edge seal applications for gas and air filled structural and non- structural insulating glass units. IGS3763 two-component silicone offers variable work life with fast deep section cure to accommodate scheduling and production needs.

Key Features and Typical Benefits

- **High Modulus**—Minimizes movement of the primary PIB seal to better retain gas inside and keep moisture out of the insulating glass unit.
- **High Elastic Recovery**—Helps to maintain the original edge design dimensions of the insulating glass unit.
- **Fast Cure**—May allow for shipping of fabricated insulating glass units within hours of completion without silicone transfer or glass shifting.
- **Compatibility**—Compatible with GE structural and weather sealing silicones as well as many commonly used accessories in the glass and glazing trade.
- **Non-flammable**—Does not require special handling or storage associated with flammable materials.

Potential Applications

- **Structural Glazing**—May be utilized as the secondary sealant for insulating glass units with or without inserts in the edge seal fabricated for structural glazing applications.
- **Silicone Durability**—Cured silicone rubber exhibits excellent long term resistance to natural weathering including: extreme temperatures, ultraviolet radiation, rain and snow, with negligible change in elasticity.
- **Adhesive**—Attains strong bonds to hard coated and uncoated glass as well as to many conventional and warm edge types of spacers without a primer.

Note:

IGS3763 silicone should only be used in the fabrication of insulating glass where the dual seal method of fabrication is used. The moisture vapor transmission rate of silicone sealants is sufficiently high as to preclude their use in the fabrication of single seal insulating glass units.

- Silicone setting blocks are recommended for direct contact with IGS3763 silicone. Avoid using non-silicone materials (i.e., EPDM, Neoprene) as they could degrade or discolor the secondary seal over time. Compatibility testing is recommended on all materials that are to be in direct contact with IGS3763 silicone.
- Avoid IGS3763 to be in contact with or exposed to sealants that evolve acetic acid cure byproduct.
- Not recommended for water immersion applications.

Packaging

IGS3763 silicone is currently comprised of the following:

Base Options:

- IGS3763A—Grey paste in 55 gallon (200 liter) drums filled to a weight of 620 pounds (281.48 kg) with polyethylene liner.
- IGS3767A—White paste in 55-gallon (200 liter) drums filled to a weight of 620 pounds (281.48 kg) with polyethylene liner.

Catalyst Options:

- IGS3763B—Black paste, mixes and cures to a black silicone rubber. Available in 5 gallon (18.9 liter) pails filled to 40 pounds (18.16 kg).
- IGS3767B—Black paste, mixes and cures to a grey silicone rubber. Available in 5 gallon (18.9 liter) pails filled to 40 pounds (18.16 kg).

Colors

IGS3763 silicone is currently available in black and grey:

Black: IGS3763A mixed with IGS3763B

Grey: IGS3767A mixed with IGS3767B

Uncured Product Storage

Base should be stored in sealed containers in a dry area at temperatures at or below 80°F (27°C).

Catalyst should be stored in sealed containers in a dry area at temperatures at or below 70°F (21°C).

Keep both base and catalyst containers out of direct sunlight.

Typical Physical Properties

Typical physical property values of IGS3763/IGS3767 two-component insulating glass silicone as supplied and cured are set forth in the tables below.

Typical Properties—Uncured⁽¹⁾

Uncured Properties	Base	IGS3763A/IGS3767A
Color	Grey/White	Thixotropic Paste
Specific Gravity	1.5 Kg/l	-
Shelf Life	18 months ⁽²⁾	-
Uncured Properties	Catalyst	IGS3763B/IGS3767B
Color	Black	Thixotropic Paste
Specific Gravity	1.05 Kg/l	-
Shelf Life	12 months ⁽²⁾	-

Mixed Compound Properties

IGS3763A+IGS3763B / IGS3767A+IGS3767B		
Color	Black / Grey	Thixotropic Paste
Specific Gravity	1.47 Kg/l	Mixed at 12.5:1 weight
Mix Ratio Range	8:1 to 11:1	By volume
Snap Time	20-85 minutes	Depends on ratio, temperature & RH
Tack Free Time	2X snap time	Depends on ratio, temperature & RH
Consistency/Sag	<0.05"	Non-sagging

Cured Properties⁽³⁾

Full Cure at Standard Laboratory Conditions @ 12.5:1 weight ratio IGS3763A+IGS3763B / IGS3767B+IGS3767		
Color	Black / Grey	IGS3763 / IGS3767
Hardness Points (type A indenter)	55	ASTM D2240
Ult. Tensile Strength Ult. Elongation	305 psi (2.1 MPa) 222%	ASTM D412
Tear Strength	37 ppi (6.81 N/mm)	ASTM D624, die B
Shear Strength	130 psi (0.90 MPa)	ASTM C961
Tensile Strength Elongation at break Modulus @ 25%	1.0 MPa (145 psi) 60% 0.7 MPa (101 psi)	ISO 8339
Tensile Strength Elongation at break Modulus @ 10% Modulus @ 25%	165 psi (1.12 MPa) 46% 64 psi (0.44 MPa) 125 psi (0.86 MPa)	ASTM C1135
Accelerated Weathering, 5000 hours	Excellent, no degradation	ASTM C1369
Heat Resistance	300°F (149°C)	-
Design stress in tension	0.15 Mpa	ETAG 002
Elastic modulus in tension or compression	2.60 Mpa	ETAG 002
Resistance to tearing	category 1	ETAG 002
Moisture vapor transmission rate	23.4 g/m ²	EN1279-4
Gas permeability	0.924 g/m ² h	EN1279-4

(1) Typical properties are average data and are not to be used as or to develop specifications.

(2) When properly stored; see section on storage.

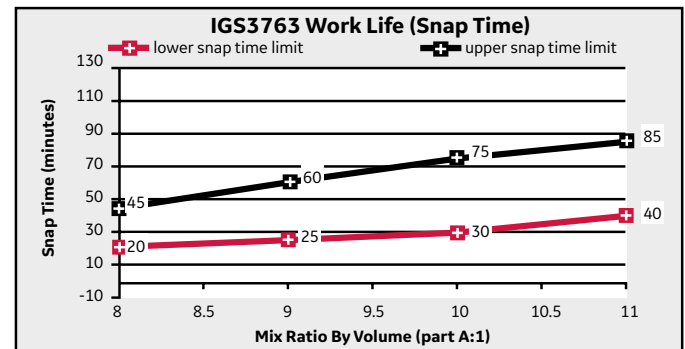
(3) Typical value, actual value may vary.

Installation

Refer to current specifications, installation guidelines and details for application instructions.

IGS3763 Volume to Weight Ratio Correlation

Volume	Weight
8:1	11.5:1
9:1	13.0:1
10:1	14.4:1
11:1	15.9:1



Applicable Standards

IGS3763 Insulating Glass Silicone meets or exceeds the requirements of the following standards and specifications:

- American Society for Testing and Materials
 - o C1369 Standard Specification for Secondary Edge Sealant for Structurally Glazed Insulating Glass Units
 - o E2190-10 Standard Specification for Insulating Glass Unit Performance and Evaluation
- European Organization for Technical Approvals
 - o European Assessment Document ETAG002
- European Committee for Standardization
 - o EN1279 Glass in Buildings - Insulating Glass Units -
 - Part 2: Long term test method and requirements for moisture penetration
 - Part 3: Long term test method and requirements for gas leakage rate and for gas concentration tolerances
 - Part 4: Methods of test for the physical attributes of edge seals
- Standardization Administration of China
 - o GB24266 Secondary edge silicone sealant for structurally glazed insulating glass units

Technical Services

For additional technical information, please contact your local customer service center. (See Customer Service Centers section herein for contact information.) Any technical advice furnished by Momentive Performance Materials (MPM) or any representative of MPM concerning any use or application of any MPM product is believed to be reliable, but MPM makes no warranty, expressed or implied, of suitability for use in any application for which such advice is furnished.

Limitations

Customers must evaluate Momentive Performance Materials (MPM) products and make their own determination as to fitness of use in their particular applications.

Patent Status

Nothing contained herein shall be construed to imply the nonexistence of any relevant patents or to constitute the permission, inducement or recommendation to practice any invention covered by any patent, without authority from the owner of the patent.

Product Safety, Handling and Storage

Customers considering the use of this product should review the latest Safety Data Sheet and label for product safety information, handling instructions, personal MPM representative. Use of other materials in conjunction with MPM sealant products (for example, primers) may require additional precautions. Please review and follow the safety information provided by the manufacturer of such other materials.

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