MOMENTIVE™

# 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 maintian 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.

## Packaging and Colors

IGS3763 silicone is currently comprised of the following:

**Base options:**

- IGS3763A – grey paste in 55 gallon (200 liter) drums filled to a weight of 617 pounds (280 kg) with polyethylene liner.
- IGS3767A – white paste in 55-gallon (200 liter) drums filled to a weight of 617 pounds (280 kg) with polyethylene liner.

**Catalyst options:**

- IGS3763B – black paste, mixes and cures to 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

## General Considerations for Installation

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

## Typical Physical Properties

Typical physical property values of IGS3763 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 | – |

| Uncured Properties | Catalyst | IGS3763B/IGS3767B |
|---|---|---|
| Color | Black | Thixotropic Paste |
| Specific Gravity | 1.05 | – |

## Mixed Compound Properties

| IGS3763A+IGS3763B / IGS3767A+IGS3767B | | |
|---|---|---|
| Color | Black / Grey | Thixotropic Paste |
| Specific Gravity | 1.47 | 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(2)

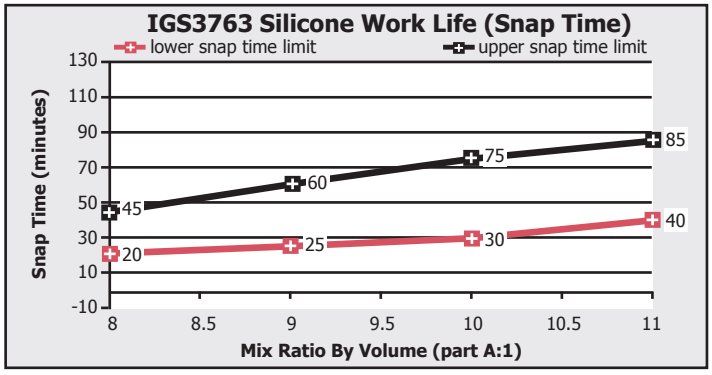
**Full Cure at Standard Laboratory Conditions @ 12.5:1 weight ratio IGS3763A+IGS3763B / IGS3767A+IGS3767B**

| Color | Black / Grey | IGS3763 / IGS3767 |
|---|---|---|
| Hardness Points (type A indenter) | 55 | ASTM D2240 |
| Ult. Tensile Strength<br>Ult. Elongation | 305 psi (2.10 MPa)<br>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<br>Elongation at break<br>Modulus @ 25% | 1.0 MPa (145 psi)<br>60%<br>0.7 MPa (101 psi) | ETAG 002 |
| Tensile Strength<br>Elongation at break<br>Modulus @ 10%<br>Modulus @ 25% | 165 psi (1.12 MPa)<br>46%<br>64 psi (0.44 MPa)<br>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) Typical value, actual value may vary.

## IGS3763 Silicone 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 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 1: Long term test method and requirements for moisture penetration
    - Part 2: Long term test method and requirements for gas leakage rate and for gas concentration tolerances
    - Part 3: 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 Service

For additional technical resources, please contact your local customer service center. (See Customer Service Centers section herein for contact information.) Any technical advice furnished by 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.

## Customer Evaluation

Customers must evaluate MPM products and make their own determination as to the 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.

### 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.

## Limitations

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 by-product.
- Not recommended for water immersion applications.

## CUSTOMER SERVICE CENTERS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