



**MOMENTIVE**  
performance materials

# IGS3743

## insulating glass sealant

### Product Description

IGS3743 insulating glass sealant is a two-component thixotropic silicone paste that forms a high strength, high modulus sealant, for use as a secondary seal in fabrication of dual seal insulating glass in applications such as storefront glazing, heavy architectural captured glazing and structural glazing applications. IGS3743 insulating glass sealant provides a good balance of short cure time, long mixer life and is suitable for use with most commercially available continuous proportioning equipment curing to a durable and resilient silicone rubber.

### Typical Performance Properties

- **Silicone Durability** - Cured silicone rubber exhibits excellent long-term resistance to natural weathering, including: ultraviolet radiation, ozone, high and low temperatures extremes and rain and snow, with negligible change in elasticity.
- **Excellent Adhesion** - Adheres to glass, mill finish aluminum, anodized aluminum and galvanized steel spacers.
- **Variable Ratio Capability** - Control snap times, cure speed, and strength development through volume mix ratio within range of 8:1 to 12:1 to accommodate production schedules and processes.
- **Black Color** - Reduced color variation with mix ratio.
- **Excellent Processability** - The low pumping viscosity and high application rate of IGS3743 insulating glass sealant provides for longer pump life with reduced maintenance on equipment. This also promotes the potential for increased production rates with easier tooling effort.
- **Excellent Filling and Tooling Characteristics** - Reduces the possibility of corner defects.
- **Fast Cure Speed** - Offers fast and thorough deep section cure for productivity and processing advantages. After mixing, the material develops adhesive and elastomeric strength that may permit same day shipping.
- **Low Sag or Slump** - Reduces post application tooling, corner sag and no tailing or dripping, for neater application.
- **No Kit Matching** - Reduces material waste and inventory management requirements.
- **Compatibility** - Compatible with Momentive Performance Materials UltraGlaze\* Structural Glazing Adhesives and the SilPruf\* family of Weatherproofing Sealants.
- **Standard Equipment** - IGS3743 insulating glass sealant is easily dispensed using common pumping equipment. Heating of this product is not necessary.
- **Product Chemistry** - Neutral cure.

Momentive Performance Materials is an exclusive licensee of General Electric. The company provides versatile materials as the starting point for our creative approach to ideas that help enable new developments across hundreds of industrial and consumer applications. We are helping cus-

tomers solve product, process, and performance problems; our silanes, fluids, elastomers, sealants, resins, adhesives, urethane additives, and other specialty products are delivering innovation in everything from car engines to biomedical devices. From helping to develop safer tires and

keeping electronics cooler, to improving the feel of lipstick and ensuring the reliability of adhesives, our technologies and enabling solutions are at the frontline of innovation.



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# IGS3743 insulating glass sealant

## Potential Uses

- IGS3743 insulating glass sealant is designed for use as an insulating glass secondary seal in the fabrication of insulating-glass units where a dual seal fabrication method is used utilizing a polyisobutylene primary seal with soldered, welded or butyl injected spacer frame corner.

## Packaging

IGS3743 insulating glass sealant is available as a two component system. The base component, IGS3743A is available in either fiber or steel drums with a polyethylene bag containing 585.0lbs. / 265.4kg. The catalyst, IGS3743B is available in plastic pails containing 40.0lbs/18.1kg and in steel drums with a polyethylene bag containing 400.0lbs/181.4kg. For ease of use and waste reduction IGS3743A and IGS3743B are not kit matched. Therefore, any batch, or container of IGS3743A base may be used with any batch or container of IGS3743B catalyst. Small amounts of clear liquid may be visible on the surface of the catalyst. This should not impact product performance.

## Colors

IGS3743 insulating glass sealant is available in Black.

- Base Part A IGS3743A, Off-White
- Catalyst Part B IGS3743B, Black

When mixed at volume ratio from 8:1 to 12:1 IGS3743A base and IGS3743B catalyst produce a black finished product.

Volume Ratio vs. Weight Ratio for IGS3743A Base with IGS3743B Catalyst:

Volume Ratio/1	Weight Ratio/1
8	11.3
9	12.7
10	14.1
11	15.5
12	16.9

## Limitations

### IGS3743 insulating glass sealant is not recommended:

- For use in single seal insulating glass units.
- For use underwater or in other applications where the product will be in continuous contact with water.
- For use in food contact applications.
- When painting of the cured sealant is desired (unless appropriate specialized paint products are used).

### IGS3743 insulating glass sealant should not be applied or used:

- As the structural adhesive between insulating glass units and curtainwall Mullions in structural glazing applications. Use UltraGlaze\* structural glazing adhesives for this.
- On wet, damp, frozen or contaminated surfaces.

## Precautions

- Although IGS3743 insulating glass sealant is not directly dependent on exposure to atmospheric moisture to cure, it requires ventilation to complete its cure and adhesion development by releasing its cure byproducts. IGS3743 insulating glass sealant should not be used in a completely sealed environment.
- It is recommended that adhesion of IGS3743 insulating glass sealant to various glass coatings and spacer substrates be verified through testing. Failure of a coating to maintain adhesion to glass should not be misconstrued as failure of the silicone adhesive.
- Prior to production use, a sample of base and catalyst should be taken from each lot of material to be used, weighed to proper ratio, hand mixed, and checked for proper snap time and thick section cure rate prior to placing in production.

## Technical Services

Additional technical information and literature may be available from Momentive Performance Materials<sup>1</sup>. Laboratory facilities and application testing are available upon request from Momentive Performance Materials<sup>1</sup>. Any technical advice furnished by Momentive Performance Materials or any representative of Momentive Performance Materials<sup>1</sup> concerning any use or application of any sealant is believed to be reliable but Momentive Performance Materials<sup>1</sup> makes no warranty, express or implied, of suitability for use in any application for which such advice is furnished.

# IGS3743 insulating glass sealant

## Specifications

Typical property values of IGS3743 insulating glass sealant as supplied and cured are set forth in the tables below. Typical product data values should not be used as specifications.

### Uncured Properties – Base Value<sup>(1)</sup>

Color	White
Specific Gravity	1.41

### Uncured Properties – Catalyst Value<sup>(1)</sup>

Color	Black
Specific Gravity	1.00
Shelf Life	12 months
Flammability	Non-flammable

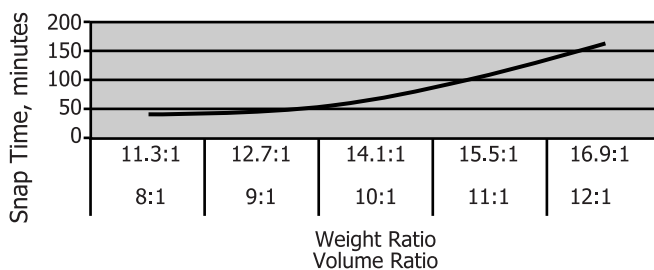
### Mixed Compound Properties – Ratio by Weight 14.1:1 Value<sup>(1)</sup>

Color	Black
Specific Gravity	1.38
Snap Time	70 minutes
Sag/Flow	0.05 inches
Corrosiveness	Non-corrosive

### Cured Properties – 7 Days @ 23°C (73°F), 50% RH

	Test Method	Value <sup>(1)</sup>
Shore A	ASTM D 2240	33
Tensile	ASTM D 412	220 psi (1.54 MPa)
Elongation %	ASTM D 412	300
H-Tensile Aluminum/ Glass	ASTM C 1135	140 psi (0.98 MPa)
Cold Flow - Creep		Negligible
Heat Resistance		300°F (150°C)

Volume Ratio vs. Weight Ratio for IGS3743A Base with IGS3743B Catalyst



(1) Average value. Actual value may vary.

# IGS3743 insulating glass sealant

## Installation

IN ALL APPLICATIONS IT IS IMPORTANT TO CONFIRM THE ACCEPTIBILITY OF EACH SEALANT-SUBSTRATE COMBINATION WITH AN ADHESION TEST PRIOR TO PROCEEDING WITH USE.

## Priming

Momentive Performance Materials does not suggest the use of primers in insulating glass applications. It is suggested that the applicator verify adhesion to substrates prior to use. Momentive Performance Materials<sup>1</sup> can provide recommendations and assistance in setting up testing procedures upon request.

## Sealant Application

### Method of Application

- IGS3743 insulating glass sealant should be mixed and dispensed using two-component mixing equipment that is readily available from several manufacturers. This equipment is specially designed to meter the proper proportions of base and catalyst, mix in an air-free environment, and dispense at proper pressures and volumes to insure air-free mixed material. Hand mixing is not recommended.
- Apply the sealant with a positive pressure by pushing the bead ahead of the nozzle and making sure that the entire cavity is filled without air pockets or voids.
- Tooling should be done neatly, forcing the sealant into contact with the sides of the joint or cavity, thus helping to eliminate any interval voids and assuring good substrate contact.
- Due to the smooth consistency of IGS3743 insulating glass sealant tooling agents such as water, soap or detergent solutions are not necessary or recommended. Dry tooling is recommended.

## Mixing, Pumping and Dispensing

- IGS3743 insulating glass sealant should be mixed and applied using suitable continuous mixing equipment. Two-component equipment employing air operating pumps or servo driven gear pumps with adjustable mix ratio control perform satisfactorily.

## Material Control

- The catalyst component is moisture sensitive and should not be exposed to the atmosphere for prolonged periods of time.
- The catalyst may require stirring before placing container in pumping equipment if settling of components has occurred. Momentive Performance Materials<sup>1</sup> can provide drum and pail changing procedures.
- Kit matching of the individual components is not required.
- Consult Momentive Performance Materials<sup>1</sup> regarding suggested pumping start-up and shutdown procedures that cover proper operating pressures, mixing devices and purging requirements.

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## Patent Status

Nothing contained herein shall be construed to imply the non existence 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 Material Safety Data Sheet and label for product safety information, handling instructions, personal protective equipment if necessary, and any special storage conditions required. Material Safety Data Sheets are available at [www.momentive.com](http://www.momentive.com) or, upon request, from any Momentive Performance Materials representative. Use of other materials in conjunction with Momentive Performance Materials products (for example, primers) may require additional precautions. Please review and follow the safety information provided by the manufacturer of such other materials.

## Emergency Service

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Momentive Performance Materials<sup>1</sup> maintains an around-the-clock emergency service for its products. The American Chemistry Council (CHEMTREC), Transport Canada (CANUTEC), and the Chemical Emergency Agency Service also maintain an around-the-clock emergency service for all chemical products:

<b>Location</b>	<b>GE Branded Products</b>	<b>All Chemical Products</b>
<b>Mainland U.S., Puerto Rico</b>	518.233.2500	CHEMTREC: 800.424.9300
<b>Alaska, Hawaii</b>	518.233.2500 (collect)	CHEMTREC: 800.424.9300
<b>Canada</b>	518.233.2500 (collect)	CANUTEC: 613.996.6666 (collect) or CHEMTREC: 800.424.9300
<b>Europe, Middle East, Africa</b>	+32.(0)14.58.45.45 (Belgium)	CHEMTREC: +1-703.527.3887 (collect)
<b>Latin America, Asia/Pacific, all other locations worldwide</b>	+518.233.2500	CHEMTREC: +1-703.527.3887 (collect)
<b>At sea</b>	Radio U.S. Coast Guard, which can directly contact Momentive Performance Materials <sup>1</sup> at 518.233.2500	CHEMTREC at 800.424.9300

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DO NOT WAIT. Phone if in doubt. You will be referred to a specialist for advice.

# Principal Locations

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	<b>UA, Silanes, Resins, and Specialties</b> 800.334.4674	304.746.1623
	<b>RTV Products-Elastomers</b> 800.332.3390	304.746.1623
	<b>Sealants and Adhesives and Construction</b> 877.943.7325	304.746.1654
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