

EdgeSil™ IGS3760

Silicone Insulating Glass Sealant

Product Description

EdgeSil IGS3760 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. EdgeSil IGS3760 two-component silicone offers variable work life 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 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:

EdgeSil IGS3760 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 EdgeSil IGS3760 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 EdgeSil IGS3760 silicone.

- Avoid EdgeSil IGS3760 to be in contact with or exposed to sealants that evolve acetic acid cure byproduct.
- Not recommended for water immersion applications.

Packaging

Packaging EdgeSil IGS3760 silicone is currently comprised of the following:

Base Options:

- IGS3760A–White paste in 55 gallon (200 liter) drums filled to a weight of 620 Lbs. (281.48 kg) with polyethylene liner.

Catalyst Options:

- IGS3760B Black–Black paste, mixes and cures to a black silicone rubber. Available in 5 gallon (18.9 liter) pails filled to 40 Lbs. (18.16 kg) and 55 gallon (208 liter) drums filled to 450 Lbs. (204 kg).

Colors

EdgeSil IGS3760 silicone is currently available in black:

Black: IGS3760A mixed with IGS3760B Black



Black

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 90°F (32°C).

Keep both base and catalyst containers out of direct sunlight. These materials may be shipped at ambient temperature.

Typical Physical Properties

Typical physical property values of EdgeSil IGS3760 two-component insulating glass silicone as supplied and cured are set forth in the tables below.

Typical Properties - Uncured⁽¹⁾

Uncured Properties	Base	IGS3760A
Color	Grey/White	Thixotropic Paste
Specific Gravity	1.5 Kg/l	-
Shelf Life	18 months ⁽²⁾	-
Uncured Properties	Catalyst	IGS3760B Black
Color	Black	Thixotropic Paste
Specific Gravity	1.11 Kg/l	-
Shelf Life	12 months ⁽²⁾	-

Mixed Compound Properties

IGS3760A+IGS3760B Black		
Color	Black/Grey	Thixotropic Paste
Specific Gravity	1.47 Kg/l	Mixed at 12.5:1 volume
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 IGS3760A+IGS3760B Black		
Color	Black/Grey	-
Hardness Points (type A indenter)	55	ASTM D2240
Ult. Tensile Strength	305 psi (2.1 MPa)	ASTM D412
Ult. Elongation	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)	ASTM C1135
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)	ISO 8339
Accelerated Weathering, 5000 hrs	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.

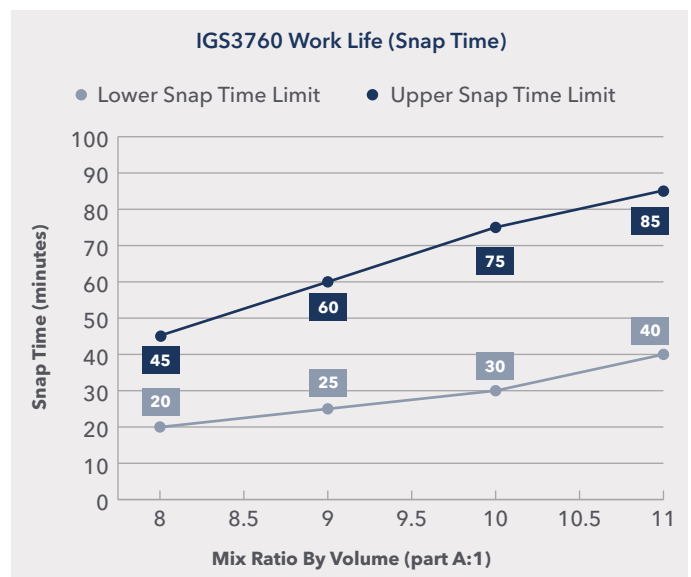
(3) Typical value, actual value may vary.

Installation

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

IGS3760 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

EdgeSil IGS3760 Insulating Glass Silicone meets or exceeds the requirements of the following standards and specifications:

- American Society for Testing and Materials
 - C1369 Standard Specification for Secondary Edge Sealant for Structurally Glazed Insulating Glass Units
 - E2190-10 Standard Specification for Insulating Glass Unit Performance and Evaluation
- European Organization for Technical Approvals
 - European Assessment Document ETAG002
- European Committee for Standardization
 - 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
 - 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.

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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 protective equipment if necessary, and any special storage conditions required. Safety Data Sheets are available at siliconesforbuilding.com or, upon request, from any MPM representative. Use of other materials in conjunction with MPM sealants 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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