Bostik

EDGE SEALANTS

EdgeStik™

9190

WARM-APPLIED, ELASTOMERIC INSULATING GLASS SEALANT

PRODUCT ■ EdgeStik 9190™ is a warm-applied elastomeric insulating glass sealant.

PRODUCT DESCRIPTION ■ EdgeStik 9190 is a one-component, 100% solids sealant system specifically developed for edge sealing insulating glass units. EdgeStik 9190 exhibits the best properties of hot melt systems, (low MVTR, no mixing, minimal waste, fast setting, immediate handling of finished insulating glass units) with those of two-component systems (outstanding chemical adhesion to glass and metal substrates, excellent low temperature and high temperature integrity) typically used in insulating glass fabrication.

BASIC USES ■ EdgeStik 9190 is ideally suited for in-house sealing of insulating glass units for residential and architectural windows, where glazing material and practices are controlled.

APPLICATION PROPERTIES

Color:	Black/Gray
Specific Gravity:	1.40
Weight per Gallon:	11.7
Viscosity Centipoises	
at 240°F	82,000 cps
at 180°F	320,000 cps
Melt flow index	
at 240°F	300 g/10 min
at 160°F	50 g/10 min
Storage Life at 70°F (21°C):	6 months
Application Temperature Range:	
Direct to glass	210°F-240°F
Linear Extruders	145°F-160°F
Volatile Content:	nil

PERFORMANCE PROPERTIES (AFTER FULL CURE)

Shore A Hardness:	48-55
Permeance ASTM E96 (.040 cm thickness):	0.02 gm/m^2–24 hr. mm Hg
MVTR IGMA Method (0.060" thickness):	1.20 gm/m^2–24 hr.
Flexibility (180° bend over 1" rod at -25°F):	No cracking
Adhesion to	
Anodized aluminum	100% cohesive failure > 35 PIW
Tin-plated steel	100% cohesive failure > 35 PIW
Glass	100% cohesive failure > 35 PIW
Corner Keys, metal	100% cohesive failure > 35 PIW
Seal Durability, Accelerated Weathering (ASTM E774-81, Method E773-81):	single seal configuration
Frost-Point, initial	pass < -90°F
Level "CBA"	pass < -90°F
Fog Test	pass
Tensile Strength:	205 psi
Elongation:	380%
CSTB Static Load at 160°F (71°C):	Pass 100+ hours

APPLICATION LIMITATIONS ■

EdgeStik 9190 is not to be utilized in window units that will be either two-sided or four-sided structurally glazed.

EdgeStik 9190 should not be applied to "soft" coat, low-E glass surfaces unless recommended by the prime glass manufacturer.

EdgeStik 9190 should not be utilized in sloped glazing applications until Bostik's Technical Services Department is contacted for recommendations.

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PACKAGING ■ EdgeStik 9190 is available in the following standard packages:

package	*net volume*	*type*
55 gallon drum	47.5 gallon	steel
5 gallon pail	4.0 gallon	steel

SURFACE PREPARATION

Glass

Glass surfaces must be thoroughly cleaned by machine or hand with non-sudsing, non-film foaming detergent and thoroughly rinsed with clean hot water. Glass must be fully dry and free from any contaminants or fingerprints.

It is important to realize that in some cases, glass may visually appear clean, and yet still have contaminants or foreign materials on the surface. These contaminants can interfere with the bonding of all insulating glass sealants, thereby resulting in reduction of the service life of the insulating glass unit.

In particular, the use of deionization or water softening equipment for glass washers is endorsed in geographical areas with above average water hardness. Please consult prime glass manufacturer for proper cleaning recommendations for glass.

Spacer and Corner Keys

Although EdgeStik 9190 has the ability to adhere through many surface contaminants, to ensure immediate and excellent adhesion, metal spacer must be thoroughly degreased and free from all mill oils and any other contamination or loose oxidation. Mill aluminum will slowly develop such corrosion if stored too long. All corner keys must be free and clear of oils, greases or other contaminants. Plastic corner keys must be free of any contaminants or mold releases.

APPLICATION EQUIPMENT ■ Standard hot melt butyl 55 gallon drum and 5 gallon pail extrusion equipment has been successful in applying EdgeStik 9190. Follow equipment manufacturer's instructions for proper use, adjustments, and maintenance requirements.

SHELF LIFE ■ When stored at or below 80°F (27°C), EdgeStik 9190 sealant has a shelf life of six months from the date of manufacturing.

APPLICATION TECHNIQUES (LINEAR LINES) ■ When used as a single seal or secondary sealant, apply EdgeStik 9190 to spacer in a three-sided "U" configuration. Initial sealant volumes should result in the final sealant geometry that effects a minimum glass contact of 0.250" width. Initial minimum film thickness on the sides of the spacer should be not less than 0.040", and minimum sealant thickness along 100% of the exterior perimeter of the spacer should be less than 0.045". After press, side depth should not be less than 0.020". The coated spacer sub assembly should be inspected for defects in sealant placement or geometry prior to insulating glass unit assembly. Care should be taken to ensure a complete, uninterrupted application of sealant. Should any skips or voids be present, EdgeStik 9190 may be reshaped using a hot knife. Once EdgeStik 9190 has cooled to room temperature, excess sealant may be removed using a hot knife. Excess sealant that has been trimmed should not be reused. Oven exit temperature of insulating unit should be a minimum of 160°F and not to exceed 200°F.

GLAZING ■ All glazing recommendations of Insulating Glass Manufacturers Association (IGMA) should be followed. Contact between EdgeStik 9190 edge seal and any solvent or oil containing glazing compound should be avoided. For recommendations on specific glazing designs or use of glazing compounds, contact Bostik Technical Service Department.

CLEAN UP ■ Equipment and tools can be cleaned with xylene immediately after use. Provide adequate ventilation and avoid any sources of ignition when using toxic flammable solvents.

HEALTH AND SAFETY PRECAUTIONS ■ EdgeStik 9190 at typical application and use temperatures will cause thermal burns of skin and eyes. In case of contact, immediately cool burn area with cold packs and cold water. Use mineral oil after sealant cools to remove it. If eye contact occurs, wash eyes with cool water for at least 15 minutes and immediately seek medical attention. Complete material safety data sheet on this product is available from Bostik.

IMPORTANT NOTICE • The information given and recommendations made herein are based on Bostik's research only and are not guaranteed to be accurate. The performance of the product, its shelf life, and application characteristics will depend on many variables, including the kind of materials to which the product will be applied, the environment in which the product is stored or applied, and equipment used for application. Any change in any of these variables can affect the product's performance. Buyers are advised to make their own tests to determine whether the product is suitable for their purposes under their own operating conditions. Bostik accepts no responsibility for the performance of the product for any particular customer or any particular use. Bostik does not warrant the product's suitability for any particular application. The product is sold only pursuant to Bostik's terms and conditions of sale and only subject to the limited warranty contained therein. **Bostik sells the product without warranty as to merchantability and fitness for a particular purpose, any warranty from course of dealing or usage of trade, or any other warranty, expressed or implied, and buyers and users assume all responsibility and liability for loss or damage arising from the handling and use of bostik's products.** Nothing contained herein shall be construed to imply the nonexistence of any relevant patents or to constitute permission, inducement or recommendation to practice any invention covered by any patent, without authority from the owner of the patent. Unless otherwise agreed to in writing, **The buyer's sole remedy for noncompliance with any warranty shall be the replacement of the product or refund of the buyer's purchase price. In no case will Bostik be liable for indirect, consequential, incidental, economic or other similar damages.**

MANUFACTURER

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