



P.O. Box 152837  
Dallas, TX 75315



### AAMA/ALI SEALED INSULATING GLASS CERTIFICATION PROGRAM

**Quality Glass & Mirror Services, Inc.**  
14242 C Circle  
Omaha, NE 68144

Plant Code: QG-1

Attn: Susan Germer

*08-2016  
thru  
08-2018  
Aisec line*

#### NOTICE OF CERTIFICATION AUTHORIZATION

**Test Method: ASTM E 2188-10**  
**Specification: ASTM E 2190-10**

The sealed insulating glass described below is hereby approved for listing in the current AAMA/ALI Certified Products Directory.

| Sealant                          | Desiccant | Spacer           | Corners | Low-E     | Gas Fill | Muntins |
|----------------------------------|-----------|------------------|---------|-----------|----------|---------|
| Polyisobutylene/<br>Polyurethane | Imbedded  | Silicone<br>Foam | Bent*   | Yes (E/D) | Argon    | No      |

\*Final corner sealed with Mylar tape.

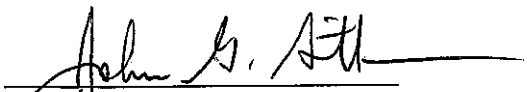
Test Laboratory: **Dallas Laboratories, Inc.**

Test Report No: **48902**

Date Test Completed: **August 17, 2016**

Certification Expiration Date: **August 17, 2018**

Date Certification Granted:  
**August 25, 2016**

  
John G. Smith, President  
Associated Laboratories, Inc.

NCA-1 (Rev. 5/16) Associated Laboratories, Inc. is the scheme owner for the Sealed Insulating Glass Certification Program. The American Architectural Manufacturers Association (AAMA), as sponsor for the program, does not provide direct or indirect oversight of program requirements or operations.

# DALLAS LABORATORIES, INC.

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[www.dallaslaboratories.net](http://www.dallaslaboratories.net)

## ASTM E2190-10 Insulating Glass Test Report

2016-  
2018

**Manufacturer:** Quality Glass & Mirror Services, Inc.  
**Address:** 14242 C Circle  
**City, State, Zip:** Omaha, NE 68144  
**Telephone No.:** 402-339-3737  
**Attention:** Susan Germer

**Code:** QG-1  
**Date:** August 23, 2016  
**Report:** 48902

**Description of Test Units:** Double Glazed

**Size (width by height):** 14" x 20" (356 mm x 508 mm).  
**Glass Thickness and Type:** 0.19" and 0.22" (4.8 mm and 5.7 mm) annealed.  
**Air Space Thickness:** 0.52" (13.1 mm).  
**Overall Thickness:** 0.93" (23.6 mm).  
**Glass Coatings:** Low-E (edge deleted).  
**Type of Spacer:** Silicone Foam (Quanex T-Spacer).  
**Corner Construction:** Bent; final corner sealed with Mylar tape.  
**Type of Desiccant:** Imbedded in spacer.  
**Sealant Type:** Polyisobutylene/Reactive Hot Melt (H.B. Fuller PIB 969/H.B. Fuller HL 5153).  
**Manufactured Date:** March 9, 2016

### TEST METHOD: ASTM E 2188-10 (Seal Durability Results)

| Unit          | FROST POINT TEST RESULTS (°F) per ASTM E546-14 |                            |  |                            |                                 |
|---------------|--|----------------------------|--|----------------------------|---------------------------------|
|               | Initial  | High Humidity<br>(14 days) | Accelerated<br>Weathering<br>(63 days) | High Humidity<br>(28 days) | Visible Deposits<br>(Yes or No) |
| 1             | <-70°  | <-70°                      | <-70°                                  | <-70°                      | No                              |
| 2             | <-70°  | <-70°                      | <-70°                                  | <-70°                      | No                              |
| 3             | <-70°  | <-70°                      | <-70°                                  | <-70°                      | No                              |
| 4             | <-70°  | <-70°                      | <-70°                                  | <-70°                      | No                              |
| 5             | <-70°  | <-70°                      | <-70°                                  | <-70°                      | No                              |
| 6             | <-70°  | <-70°                      | <-70°                                  | <-70°                      | No                              |
| Requirement:  | ≤-40°  | ≤-40°                      | ≤-40°                                  | ≤-40°                      | No                              |
| Pass or Fail: | Pass   | Pass                       | Pass                                   | Pass                       | Pass                            |
| Test Date:    | 4/8/16   | 4/25/16                    | 7/15/16                                | 8/17/16                    | 8/17/16                         |

**TEST METHOD: ASTM E 2189-10 (Volatile Fog Results)**

*2016-2018*

| Unit          | Muntins | Duration of Testing | Results |
|---------------|---------|---------------------|---------|
| 10            | No      | 7 Days              | No Fog  |
| 11            | No      | 7 Days              | No Fog  |
|               |         |                     |         |
| Requirement:  |         | 7 Days              | No Fog  |
| Pass or Fail: |         |                     | Pass    |
| Test Date:    |         |                     | 6/17/16 |

**TEST METHOD: ASTM E 2649-12 (Argon Gas Retention Results)**

| Unit          | Initial Argon Gas Content | Final Argon Gas Content |
|---------------|---------------------------|-------------------------|
| 1             | 93%                       | 80%                     |
| 2             | 91%                       | 82%                     |
| 3             | 90%                       | 82%                     |
| 4             | 88%                       | 80%                     |
| 5             | 90%                       | 78%                     |
| 6             | 91%                       | 78%                     |
| 7             | 89%                       |                         |
| 8             | 90%                       |                         |
| 9             | 91%                       |                         |
|               |                           |                         |
| Average:      | 90%                       | 80%                     |
| Requirement:  | ≥90%*                     | ≥80%*                   |
| Pass or Fail: | Pass                      | Pass                    |
| Test Date:    | 4/8/16                    | 8/17/16                 |

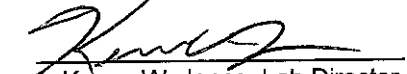
\*With no individual test unit less than 50%.

The test units described in this report comply with the ASTM E2190-10 test requirements.

DALLAS LABORATORIES, INC.

  
 Arturo Thompson, Lab Technician

DALLAS LABORATORIES, INC.

  
 Kevan W. Jones, Lab Director