



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

**RECEIVED**  
SEP 26 2016

#### 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/ Polyurethane	Mol. Sieve	Anodized Aluminum	Plastic Key	Yes (E/D)	Argon	No

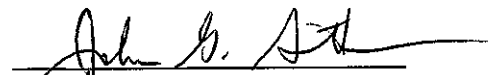
Test Laboratory: **Dallas Laboratories, Inc.**

Test Report No: **48977**

Date Test Completed: **September 13, 2016**

Certification Expiration Date: **September 13, 2018**

Date Certification Granted:  
**September 22, 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

**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:** September 21, 2016  
**Report:** 48977

**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" (4.7 mm and 5.7 mm) annealed.  
**Air Space Thickness:** 0.50" (12.8 mm).  
**Overall Thickness:** 0.92" (23.2 mm).  
**Glass Coatings:** Low-E (edge deleted).  
**Type of Spacer:** Anodized Aluminum (Allmetal).  
**Corner Construction:** Plastic key.  
**Type of Desiccant:** Mol. Sieve (Haixin 3A 1.0).  
**Sealant Type:** Polyisobutylene/Polyurethane (H.B. Fuller PIB 969/PU-810).  
**Manufactured Date:** April 4, 2016

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

Unit	FROST POINT TEST RESULTS (°F) per ASTM E546-14				
	Initial	High Humidity (14 days)	Accelerated Weathering (63 days)	High Humidity (28 days)	Visible Deposits (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:	5/4/16	5/19/16	8/11/16	9/13/16	9/13/16

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

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:			8/1/16


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

Unit	Initial Argon Gas Content	Final Argon Gas Content
1	92%	90%
2	91%	88%
3	91%	88%
4	92%	90%
5	92%	91%
6	92%	90%
7	93%	
8	91%	
9	92%	
Average:	92%	90%
Requirement:	≥90%*	≥80%*
Pass or Fail:	Pass	Pass
Test Date:	5/4/16	9/13/16


\*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