



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

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	Imbedded	Silicone Foam	Bent*	Yes (E/D)	Argon	No

*Final corner sealed with Mylar tape.

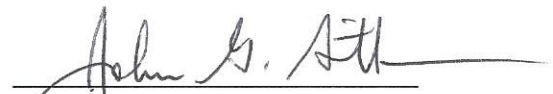
Test Laboratory: **Dallas Laboratories, Inc.**

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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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: 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 (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:	4/8/16	4/25/16	7/15/16	8/17/16	8/17/16

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:			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