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VIG TECHNOLOGIES, LLC
TEST REPORT

SCOPE OF WORK
DUAL PANE VACUUM INSULATING GLASS UNIT PERFORMANCE EVALUATION

REPORT NUMBER
L1112.01-201-28

TEST DATES
06/19/20 - 10/13/20

ISSUE DATE
10/15/20

PAGES
5

DOCUMENT CONTROL NUMBER
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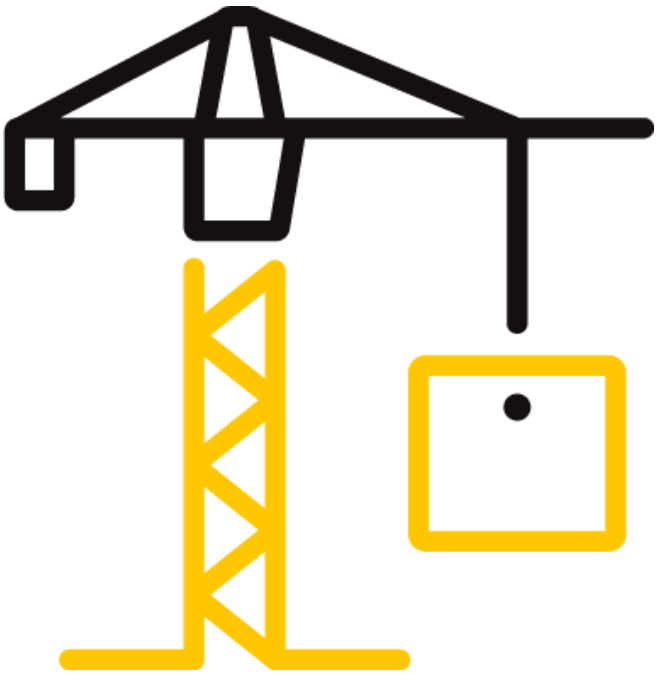

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TEST REPORT FOR VIG Technologies, LLC
Report No.: L1112.01-201-28
Date: 10/15/20

REPORT ISSUED TO

VIG TECHNOLOGIES, LLC
2875 Jupiter Park Drive, Suite 100
Jupiter, FL 33455

SECTION 1

SCOPE

Intertek Building & Construction (B&C) was contracted by VIG Technologies, LLC to evaluate the insulating glass performance of Vacuum Insulated Glass (VIG) Set #1. The product descriptions and test results are reported herein. Results obtained are tested values and were secured by using the designated test methods. Testing was conducted at the Intertek B&C test facility in Fridley, Minnesota.

This report does not constitute certification of this product nor an opinion or endorsement by this laboratory. Intertek B&C will service this report for the entire test record retention period. The test record retention period ends four years after the test date. Test records, such as detailed drawings, datasheets, representative samples of test specimens, or other pertinent project documentation, will be retained for the entire test record retention period.

SECTION 2

SUMMARY OF TEST RESULTS

	FROST POINT			
	HIGH HUMIDITY	ACCELERATED WEATHERING	HIGH HUMIDITY	VISIBLE DEPOSITS
REQUIREMENT	≤ -40	≤ -40	≤ -40	No Deposits
PASS/FAIL	Pass	Pass	Pass	Pass

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Date: 10/15/20

For INTERTEK B&C:

COMPLETED BY:	Lukas M. Bayer	**REVIEWED BY:**	Tyler Westerling, P.E.
TITLE:	Technician	**TITLE:**	Senior Project Engineer – Building & Construction
SIGNATURE:	Digitally Signed for: Lukas Bayer by Wendy Allison	**SIGNATURE:**	Digitally Signed by: Tyler Westerling
DATE:	10/20/20	**DATE:**	10/20/20

LMB: tw/wma

LICENSED PROFESSIONAL ENGINEER
TYLER WESTERLING
M 34003
EXP 03/31/2022
MECHANICAL
STATE OF CALIFORNIA

2020.10.28 14:50:15 -07'00'

SECTION 3
TEST METHODS

The specimens were evaluated in accordance with the following:

ASTM E546-14, *Standard Test Method for Frost/Dew Point of Sealed Insulating Glass Units*

ASTM E2188-19, *Standard Test Method for Insulating Glass Unit Performance*

ASTM E2190-19, *Standard Specification for Insulating Glass Unit Performance and Evaluation*

SECTION 4
MATERIAL SOURCE

Test samples were provided by Landglass/LandVac – Luoyang, China. The specimens were received on 05/08/20, in good condition and suitable for testing unless noted otherwise.

SECTION 5
SAMPLE RETENTION

Tested specimens will be retained for thirty (30) days from the report date. Specimens which do not comply with the referenced standards will be retained for ninety (90) days from the report date. All specimens will be automatically discarded after the specified retention period is exhausted.

SECTION 6
LIST OF OFFICIAL OBSERVERS

NAME	COMPANY
Lukas M. Bayer	Intertek B&C

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SECTION 7
TEST SPECIMEN DESCRIPTION

Manufacturer: Landglass/LandVac – Luoyang, China
Product / Reference No.: Vacuum Insulated Glass (IVG) Set #1
Manufactured Date: 08/01/18
Overall Size: 355mm x 505mm ± 6 mm
Glass Thickness: 4 mm (nominal)
Glass Type: double Silver D80 LowE (#2), Edge deleted manufactured by JinJiang; Clear Float
Overall Thickness: 8.5 mm
Air Space: 0.5 mm
Spacer: Landglass/LandVac
Corners: Landglass/LandVac
Primary Sealant: Landglass/LandVac
Secondary Sealant: Landglass/LandVac
Desiccant: Getter manufactured by Landglass/LandVac
Other Features: N/A
Information obtained from: VIG Technologies, LLC

SECTION 8
TEST RESULTS

ASTM E2188-19 Seal Durability Results

UNIT	PRIMARY SEALANT WIDTH MIN.-MAX. (mm)	FROST POINT TEST RESULTS (°C) PER ASTM E546-14				
		INITIAL	HIGH HUMIDITY (14 DAYS)	ACCELERATED WEATHERING (252 CYCLES)	HIGH HUMIDITY (28 DAYS)	VISIBLE DEPOSITS (Y OR N)
83	8-10	<-50	<-50	<-50	<-50	N
84	8-10	<-50	<-50	<-50	<-50	N
86	8-10	<-50	<-50	<-50	<-50	N
87	8-10	<-50	<-50	<-50	<-50	N
88	8-10	<-50	<-50	<-50	<-50	N
89	8-10	<-50	<-50	<-50	<-50	N
REQUIREMENT	N/A	N/A	≤ -40	≤ -40	≤ -40	No Deposits
PASS/FAIL	N/A	N/A	Pass	Pass	Pass	Pass
DATE	06/19/20	06/19/20	07/07/20	09/11/20	10/13/20	10/13/20

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SECTION 8
CONCLUSION

Meets the requirements of ASTM E2190-19 per E2188-19 and E546-14 test methods.

SECTION 9
REVISION LOG

REVISION #	DATE	PAGES	REVISION
0	10/15/20	N/A	Original Report Issue