

# ROCHESTER INSULATED GLASS INC. TEST REPORT

**SCOPE OF WORK**

BOIL AND IMPACT TESTING ON LAMINATED SAFETY GLAZING MATERIAL

**REPORT NUMBER**

I3147.02-119-37

**TEST DATE(S)**

04/12/18

**ISSUE DATE**

04/17/18

**RECORD RETENTION END DATE**

04/12/22

**PAGES**

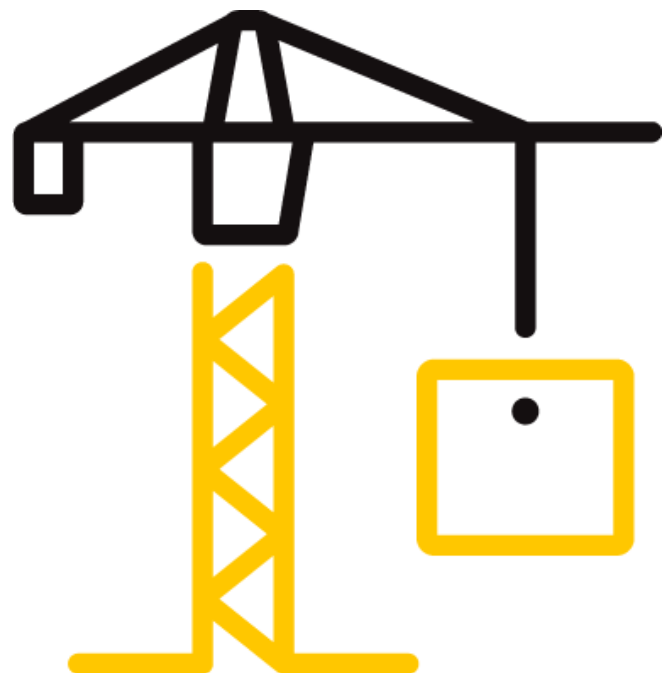
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## TEST REPORT FOR ROCHESTER INSULATED GLASS INC.

Report No.: I3147.02-119-37

Date: 04/17/18

### REPORT ISSUED TO

#### ROCHESTER INSULATED GLASS INC.

73 Merrick Circle

Manchester, New York 14504

### SECTION 1

#### SCOPE

Intertek Building & Construction (B&C) was contracted by Rochester Insulated Glass Inc., Manchester, New York to perform safety glazing impact testing in accordance with ANSI Z97.1, CAN/CGSB 12.1, and CPSC 16 CFR 1201 on their laminated transparent glass. 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 York, Pennsylvania. This report does not constitute certification of this product nor an opinion or endorsement by this laboratory.

### SECTION 2

#### SUMMARY OF TEST RESULTS

SPECIMEN NUMBER	1	2	3	4
BOIL TEST RESULTS	Pass	Pass	Pass	NA
IMPACT TEST RESULTS	Pass	Pass	Pass	Pass

For INTERTEK B&C:

**COMPLETED BY:** Todd M. Wilt  
**TITLE:** Lead Technician  
**SIGNATURE:**  
**DATE:** 04/17/18

tmw:vtm/aaa

**REVIEWED BY:** Virgal T. Mickley, Jr., P.E.  
**TITLE:** Senior Staff Engineer  
**SIGNATURE:**  
**DATE:** 04/17/18

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### SECTION 3

#### TEST METHOD(S)

The specimens were evaluated in accordance with the following:

**ANSI Z97.1-2015**, *For safety glazing materials used in buildings - safety performance specifications and methods of test*, American National Standard

**CAN/CGSB 12.1-2017**, *Safety Glazing*, National Standard of Canada

**CPSC 16 CFR 1201**, *Safety Standard for Architectural Glazing Materials*, Consumer Product Safety Commission (Version: 2012; Source: 42 FR 1441, Jan. 16, 1977)

### SECTION 4

#### MATERIAL SOURCE

Test samples were obtained from the manufacturer. The specimens were received on 04/10/18, in good condition and suitable for testing unless noted otherwise.

### SECTION 5

#### SAMPLE RETENTION

All test specimens were destroyed by test or by personnel and have been disposed of as trash. Representative sections of the failing samples will be retained for up to 30 days from the date of report issuance. After 30 days, representative samples will be automatically discarded.

### SECTION 6

#### LIST OF OFFICIAL OBSERVERS

NAME	COMPANY
Todd M. Wilt	Intertek B&C

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### SECTION 7

#### TEST PROCEDURE

##### Overview

Designated impact specimens were impacted once from the select drop height unless noted otherwise. For asymmetric materials, two specimens were impacted from each side. Three boil specimens were preconditioned and placed in boiling water for two hours, a visual inspection of the boil specimens was conducted following the exposure.

##### Drop Height Classification

All specimens were impacted once from a drop height of 48 inches.

DROP HEIGHT CLASSIFICATION			
ANSI	CGSB	CPSC	DROP HEIGHT
Class A	Class A	Category II	48 in.

### SECTION 8

#### TEST SPECIMEN DESCRIPTION

**Manufacturer:** Rochester Insulated Glass Inc. - Manchester, New York

**Glazing Product Designation:** Prototype

**Overall Glazing Thickness:** 1/2" (nominal)

**Glazing Type:** Laminated Transparent Glass (LTG)

**Sample Dimensions:** **Impact:** 34" wide x 76" high ( $\pm 1/8"$ )

**Boil:** 12" x 12" ( $\pm 1/8"$ )

**Size Classification:** Unlimited

**Interlayer Manufacturer/Type:** Kuraray/PVB

Interlayer Manufacturer/Type Obtained from Rochester Insulated Glass.

##### Laminated Glazing Composition Details

SAMPLE TYPE	THICKNESS MEASUREMENTS (inches) <sup>A</sup>			
	OVERALL	GLASS LITE 1	INTERLAYER <sup>B</sup>	GLASS LITE 2
Boil	0.535	0.223	0.088	0.224
Impact	0.532	0.222	0.091	0.219
Type	--	Annealed	Interlayer	Annealed

<sup>A</sup> Measurement values obtained from the first test specimen of the boil and impact test.

<sup>B</sup> Calculated thickness based on summation of glass thicknesses subtracted from overall thickness.

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### SECTION 9

#### TEST RESULTS

Lab Temperature: 72°F

Duration of Pre-Conditioning @ 68 - 85°F: 24 Hours

#### Boil Test Results

SPECIMEN NUMBER	OVERALL THICKNESS (inches)	TEST RESULTS & OBSERVATIONS	PASS/FAIL
1	0.535	No bubbles or defects	Pass
2	0.532	No bubbles or defects	Pass
3	0.534	No bubbles or defects	Pass

**Acceptance Criteria:** No bubbles or defects more than 1/2" from edge or crack.

#### Impact Test Results

SPECIMEN NUMBER	OVERALL THICKNESS (inches)	TEST RESULTS & OBSERVATIONS	PASS/FAIL
1	0.532	Did not break	Pass
2	0.532	No openings	Pass
3	0.531	No openings	Pass
4	0.531	No openings	Pass

**Acceptance Criteria:** After impact, openings are evaluated as described below and detached particles are collected. Individual detached particles less than the mass equivalent of 1 sq. in. of the original test specimen are excluded from evaluation.

(a) No shear or opening through which a 3" sphere can freely pass with 4 lbs. force.

(b) Detached particles collected after impact shall not weigh more than 15.5 sq. in. of the original test specimen.

(c) No single particle shall weigh more than 6.82 sq. in. of the original test specimen.

### SECTION 10

#### CONCLUSION

The specimens meet the boil and impact test requirements of the referenced standards for the size classification listed.



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**SECTION 11**  
**REVISION LOG**

REVISION #	DATE	PAGES	REVISION
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