



# BLACKWATER TECHNICAL SERVICES INC.

7341 Westport Pl Suite 1A, West Palm Beach Fl. 33413

Phone: 561-508-2830 E-mail: Engdep@blackwatertesting.com



**REPORT NO:** BT-SGG-23-001  
**TEST DATE:** 06/30/2023  
**REPORT DATE:** 07/07/2023

**RENDERED TO:** Smart Glass Group  
Attn: Anton Yerkeyev  
730 NW 57th Place, Unit 1  
Fort Lauderdale, FL 33309

**REPORT ON:** Safety Glazing Material Impact and Boil Tests

- Smart Glass Group (730 NW 57th Place, Unit 1 Fort Lauderdale, FL 33309)
- Test Size: 34" x 76" for Impact Test (4 specimens)  
12" x 12" for Boil Test (3 specimens)
- All test specimens were destroyed by test or by our personnel and have been disposed of as trash.

## DESCRIPTION OF TYPICAL SPECIMEN:

### **1/2" Laminated PriWatt™ Switchable Glass**

- 1/4" Heat Strengthened Glass
- PriWatt Interlayer: 0.030" EVguard-0.0157 Priwatt Film – 0.030 EVguard
- 1/4" Heat Strengthened Glass

## INTERLAYER SUPPLIER, BRAND, AND FORMULATION: (interlayer manufacturer, type, and thickness)

Folienwerk Wolfen GmbH  
EVguard Film- 0.76mm or 0.030"  
Switchble LLC - PriWatt PDLC Film 0.4mm (UL 514182, ASTM E1354, ASTM E662, SMP 800-C)

**PATTERN:** N/A

**WEIGHT OF ONE LITE:** 111.0lbs of 34" by 76"

**PATTERN DEPTH CLASSIFICATION:** N/A

**TEMPERATURE:** 82°F

Testing in accordance with ANSI Z97.1-2015 (R2020); CPSC 16 CFR 1201; & CAN/CGSB 12.1-2022 as indicated

## BOIL TEST RESULTS

| Specimen # | Test Standard        | Overall Thickness (inch) | Results              | Allowed                                                 |
|------------|----------------------|--------------------------|----------------------|---------------------------------------------------------|
| Specimen 1 | ANSI/CAN 16 CFR 1201 | 0.522                    | No cracks or bubbles | No bubbles or defects more than 1/2" from outer surface |
| Specimen 2 | ANSI/CAN 16 CFR 1201 | 0.518                    | No cracks or bubbles | No bubbles or defects more than 1/2" from outer surface |
| Specimen 3 | ANSI/CAN 16 CFR 1201 | 0.524                    | No cracks or bubbles | No bubbles or defects more than 1/2" from outer surface |

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## IMPACT TEST RESULTS

| Specimen # | Test Standard | Overall Thickness (inch) | Impact Drop Height (inch) | Results                         | Allowed                          |
|------------|---------------|--------------------------|---------------------------|---------------------------------|----------------------------------|
| Specimen 4 | ANSI/CAN      | 0.528                    | 48.00                     | No shear, opening or detachment | No shear or opening >3" diameter |
| Specimen 5 | ANSI/CAN      | 0.533                    | 48.00                     | No shear, opening or detachment | No shear or opening >3" diameter |
| Specimen 6 | ANSI/CAN      | 0.531                    | 48.00                     | No shear, opening or detachment | No shear or opening >3" diameter |
| Specimen 7 | ANSI/CAN      | 0.529                    | 48.00                     | No shear, opening or detachment | No shear or opening >3" diameter |

**REMARKS:** Meets the impact requirements of the referenced standards for the size classification listed.  
All impact specimens exhibit Type 1 Impact results with no delamination or detachment of glass from interlayer.

## Impact Specimen Thickness Measurement

Specimen #4

Thickness = 0.528in

Lite #1 Thickness= 0.225 in

Interlayer Thickness= 0.078in

Lite #2 Thickness= 0.225 in

## Boil Specimen Thickness Measurement

Specimen #3

Thickness = 0.524in

Lite #1 Thickness= 0.223 in

Interlayer Thickness= 0.077 in

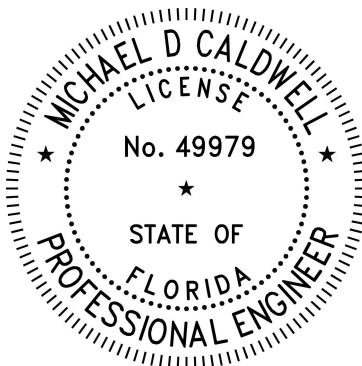
Lite #2 Thickness= 0.224 in

In Charge of Tests:  
Wyatt Sherman, E.I.T

Under Supervision of:  
Michael Caldwell P.E.

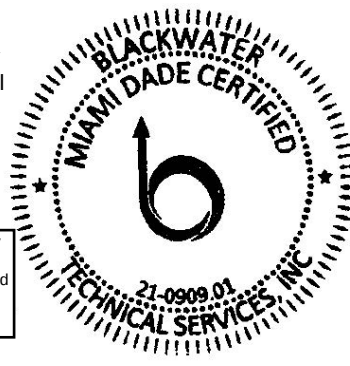
Professional Engineer:

Michael Caldwell P.E.



Michael D Caldwell  
Digitally signed by Michael D Caldwell  
Date: 2023.07.11 14:13:01 -04'00'

This item has been digitally signed and sealed by Michael Caldwell, PE, on 07/11/2023. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.





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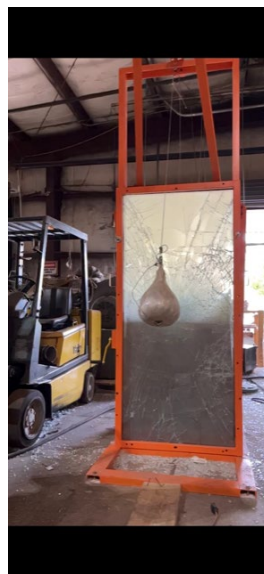
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## Pictures of specimens after testing:



Boiled Specimens



Impacted Specimen

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