

EASTMAN PERFORMANCE FILMS, LLC TEST REPORT

SCOPE OF WORK

SAFETY GLAZING MATERIAL TESTING OF LLUMAR SCL SR PS4 FILM ON 1/8" GLASS

REPORT NUMBER

I7039.08-119-37

TEST DATE

07/24/18

ISSUE DATE

08/09/18

RECORD RETENTION END DATE

07/24/22

PAGES

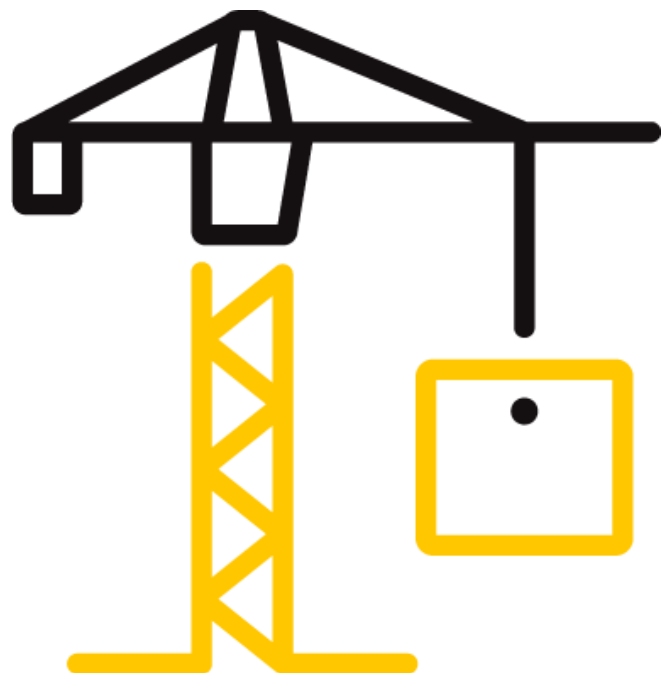
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TEST REPORT FOR EASTMAN PERFORMANCE FILMS, LLC

Report No.: I7039.08-119-37

Date: 08/09/18

REPORT ISSUED TO

EASTMAN PERFORMANCE FILMS, LLC

4210 The Great Road
Fieldale, Virginia 24089

SECTION 1

SCOPE

Intertek Building & Construction (B&C) was contracted by Eastman Performance Films, LLC - Fieldale, Virginia to perform safety glazing material performance testing in accordance with ANSI Z97.1 and CPSC 16 CFR 1201 of their LLumar SCL SR PS4 Film on 1/8" thick annealed 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

Film: Llummar SCL SR PS4



Glass: 1/8" annealed glass

Glazing Type: Organic Coated Glass

IMPACT TEST RESULTS			
STANDARD	CLASSIFICATION	DROP HEIGHT	RESULT ¹
ANSI	Class B	18 in. (457 mm)	Pass
CPSC	Category I	18 in. (457 mm)	Pass

¹The performance evaluation of the product identified in this test report was isolated to impact testing only, accelerated weathering/aging and thermal tests were not performed.

For INTERTEK B&C:

COMPLETED BY:	Todd M. Wilt	REVIEWED BY:	Virgal T. Mickley, Jr., P.E.
TITLE:	Lead Technician	TITLE:	Senior Staff Engineer
SIGNATURE:	 Digitally Signed by: Todd M. Wilt	SIGNATURE:	 Digitally Signed by: Virgal Thomas Mickley, Jr.
DATE:	08/09/18	DATE:	08/09/18

TMW:vtm/aaa

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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

CPSC 16 CFR 1201, *Safety Standard for Architectural Glazing Materials*, Consumer Product Safety Commission (16 CFR Ch. II, 1-1-03 Edition)

SECTION 4

MATERIAL SOURCE

Clear, annealed glass lites with 4 mil film were delivered to Intertek from Eastman Performance Films, LLC on 07/18/18. The specimens were conditioned before and during testing between 68° to 85°F.

SECTION 5

SAMPLE RETENTION

All test specimens were destroyed by test or by personnel and have been disposed of as trash.

SECTION 6

EQUIPMENT

ASSET #	DESCRIPTION	CAL DUE DATE
63303	Impact Frame	09/22/18
65882	Impactor (100lb.)	11/22/18
65852	Calipers/Thickness Gauge	09/13/18
INT00433	Thermometer	01/28/19
62039	Weight Scale	09/13/18

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LIST OF OFFICIAL OBSERVERS

NAME	COMPANY
Steve DeBusk	Eastman Performance Films, LLC
Todd M. Wilt	Intertek B&C
Cory E. Straub	Intertek B&C

SECTION 8

TEST PROCEDURE

Specimens were clamped into a steel frame and impacted with a 100 Lb. impactor from a drop height of 18 inches from the center of the impactor to the centerline of the test specimen. Specimens were examined for openings and glass loss after impact in accordance with the interpretation of results per the referenced standards.

SECTION 9

TEST SPECIMEN DESCRIPTION

Product: LLumar SCL SR PS4 on 1/8" Glass

Glazing Type: Organic Coated Glass

Glass Type: Clear Annealed Glass

Size Classification: Unlimited (U)

Glass Manufacturer: Unknown

Film/Organic Coating Manufacturer: Eastman Performance Films, LLC - Fieldale, Virginia

Film/Organic Coating Brand Name: LLumar SCL SR PS4

Film Thicknesses: 4 mil

Nominal Glass Thickness: 1/8"

Sample Dimensions: 34" wide x 76" high (Impact)

Glazing Composition Details

THICKNESS (in.)		
Overall	Glass	Film
0.131	0.127	0.004

Method of Film Measurement: The overall glazing thickness was measured, then the film was separated and removed and the glass thickness, exclusive of the film, was measured. The film thickness was calculated by subtracting the measured glass thickness from the measured overall thickness.

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SECTION 10

TEST RESULTS

Test Date: 07/24/18

Lab Temperature: 71°F

Impact Drop Height: 18 inches

SPECIMEN NUMBER	THICKNESS (IN.)	IMPACT SIDE (G / F) ¹	OBSERVATIONS	LARGEST FRAGMENT	TOTAL FRAGMENTS	PASS/ FAIL
1	0.131	F	1" x 25" opening	N/A	N/A	Pass
2	0.131	F	1/8" x 1" opening	N/A	N/A	Pass
3	0.130	G	No openings	N/A	N/A	Pass
4	0.130	G	No openings	7.1 g	7.1 g	Pass

¹ Impact Side: G = Glass Side Impacted F = Film/Organic Coated Side Impacted

Acceptance Criterion:

No detached fragments over 1 in².

No single detached particle shall weigh more than 6.82 in².

Total weight of detached particles >1 in² shall not weigh more than 15.5 in².

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

Limit

5.00 grams

34.10 grams

77.50 grams

Note 1: Acceptance criteria limits were calculated using the nominal glass thickness identified in the 'Glazing Composition Details' section.

Note 2: The 'Limit' presented for each item in the 'Impact Test Acceptance Criteria' identifies the allowable weight of the particle/fragment size for the specified item in the 'Criterion' section.

SECTION 11

CONCLUSION

The specimens meet the impact performance requirements set forth in the referenced test procedures.

SECTION 12

REVISION LOG

REVISION #	DATE	PAGES	REVISION
0	08/09/18	N/A	Original Report Issue