

EASTMAN CHEMICAL COMPANY TEST REPORT

SCOPE OF WORK

MODIFIED ASTM E1886 AND ASTM E1996 TESTING ON
LLUMAR SHE CL ER PS7 AND LLUMAR SHE CL ER PS4, FILM

REPORT NUMBER

I7833.01-109-44

TEST DATE(S)

09/10/18 - 09/12/18

ISSUE DATE

10/02/18

RECORD RETENTION END DATE

09/12/22

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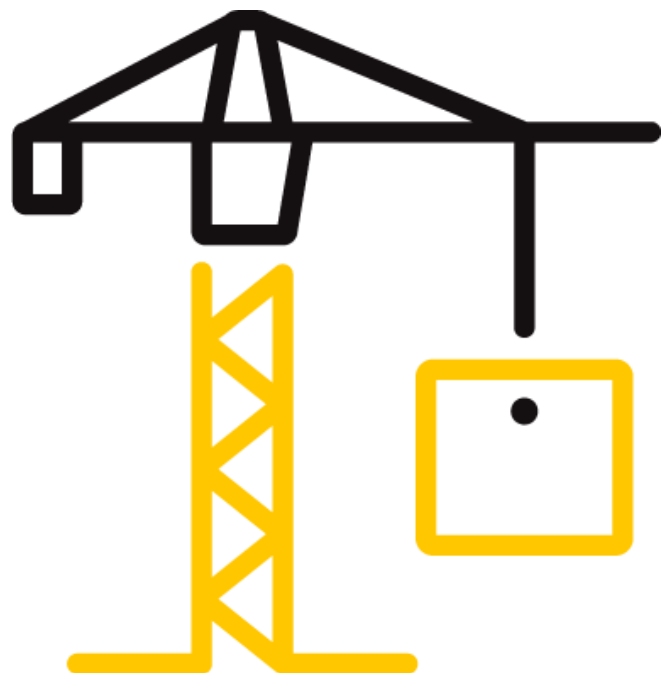
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TEST REPORT FOR EASTMAN CHEMICAL COMPANY

Report No.: I7833.01-109-44

Date: 10/02/18

REPORT ISSUED TO

EASTMAN CHEMICAL COMPANY

4210 The Great Road
Fieldale, Virginia 24089

SECTION 1

SCOPE

Intertek Building & Construction (B&C) was contracted by Eastman Chemical Company to perform testing in general accordance with Modified ASTM E1886 and ASTM E1996 on their LLumar SHE CL ER PS7 and LLumar SHE CL ER PS4, Film. Results obtained are tested values and were secured by using the designated test method(s). Testing was conducted at 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.

For INTERTEK B&C:

COMPLETED BY:	Richard E. Hartman III
TITLE:	Technician – Product Testing
SIGNATURE:	
DATE:	10/02/18

REVIEWED BY:	Timothy J. McGill
TITLE:	Manager – Product Testing
SIGNATURE:	
DATE:	10/02/18

REH:wnl

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SECTION 2

SUMMARY OF TEST RESULTS

Product Type: Film

Series/Model: LLumar SHE CL ER PS7 and LLumar SHE CL ER PS4

Test Specimens #46, #47, and #48: Cyclic Windload

TITLE	RESULTS
±1245 Pa (±26.00 psf) Design Pressure	No additional damage observed
±2394 Pa (±50.00 psf) Design Pressure	No additional damage observed
±3112 Pa (±65.00 psf) Design Pressure	No additional damage observed

Test Specimens #50 and #51: Cyclic Windload

TITLE	RESULTS
±3830 Pa (±80.00 psf) Design Pressure	No additional damage observed

Test Specimens #52, #53, and #54: Cyclic Windload

TITLE	RESULTS
±1245 Pa (±26.00 psf) Design Pressure	No additional damage observed
±2394 Pa (±50.00 psf) Design Pressure	No additional damage observed
±3112 Pa (±65.00 psf) Design Pressure	No additional damage observed

SECTION 3

TEST METHOD(S)

The specimens were evaluated in general accordance with the following:

ASTM E1886-13a, *Standard Test Method for Performance of Exterior Windows, Curtain Walls, Doors, and Impact Protective Systems Impacted by Missile(s) and Exposed to Cyclic Pressure Differentials*

ASTM E1996-17, *Standard Specification for Performance of Exterior Windows, Curtain Walls, Doors, and Impact Protective Systems Impacted by Windborne Debris in Hurricanes*

Impact Procedure Provided by the Client:

Specimens #46 - #48 and #50 - #54 were impacted with a center punch prior to cyclic windload. The impact was located 20" from the sill and 12" from the left jamb. The impacted location caused a 1/8" hole and the exterior glazing fractured.

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MATERIAL SOURCE/INSTALLATION

Test specimen(s) were provided by the client. Representative samples of the test specimen(s) will be retained by Intertek B&C for a minimum of four years from the test completion date.

The specimens were blind stopped into Spruce-Pine-Fir wood bucks. The rough opening allowed for a 1/4" shim space. The exterior perimeter of the window was sealed with tape. Installation of the tested product was performed by the Intertek B&C.

LOCATION	ANCHOR DESCRIPTION	ANCHOR LOCATION
Head, sill, and jambs	Interior 1-1/2" x 1-1/2" wood blind stops and exterior 2" x 4" wood blind stops secured using #8 x 3" flat head screws	Located at the head, sill, and jambs on the interior and exterior of the test unit

Tape was used to seal against air leakage during cyclic windload testing. In our opinion, the tape did not influence the results of the test.

SECTION 5

EQUIPMENT

Calibration of test equipment was performed by Intertek B&C in accordance with AAMA 205-15.

Cannon: Constructed from steel piping utilizing compressed air to propel the missile

Missile: 2x4 Southern Pine

Timing Device: Electronic Beam Type

Cycling Mechanism: Computer controlled centrifugal blower with electronic pressure measuring device

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SECTION 6

LIST OF OFFICIAL OBSERVERS

NAME	COMPANY
Steve DeBusk	Eastman Chemical Company
Ken R. Stough	Intertek B&C
Andrew P. Mehalick	Intertek B&C
Timothy J. McGill	Intertek B&C
Richard E. Hartman III	Intertek B&C

SECTION 7

TEST SPECIMEN DESCRIPTION

Product Type: Exterior Clear Film

Series/Model: LLumar SHE CL ER PS7 and LLumar SHE CL ER PS7

Product Size(s):

Test Specimens #46 - #48 and #50 - #54

OVERALL AREA:	WIDTH		HEIGHT	
	millimeters	inches	millimeters	inches
2.2 m ² (24.0 ft ²)				
Overall size	1219	48	1829	72

The following descriptions apply to all specimens.

Frame Construction:

FRAME MEMBER	MATERIAL	DESCRIPTION
Head, sill, and jambs	Aluminum	Extruded and thermally broken

	JOINERY TYPE	DETAIL
All corners	Butted	The corners were secured together using two #12 x 1" pan head screws through the jambs and into the head and sill screw bosses.

Reinforcement: No reinforcement was utilized.

Weatherstripping: No weatherstripping was utilized.

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Glazing: *No conclusions of any kind regarding the adequacy or inadequacy of the glass in any glazed test specimen(s) can be made.*

Test Specimens #46 - #48, #50, and #51

GLASS TYPE	SPACER TYPE	INTERIOR LITE	EXTERIOR LITE	GLAZING METHOD
1" IG	Desiccant-filled aluminum box spacer	1/4" tempered	1/4" tempered 0.007" LLumar SHE CL ER PS7	Exterior glazed against a vinyl glazing strip and secured in place using a snap-in aluminum glazing bead at the sill with a bead of Dow Corning 995 structural silicone

Test Specimens #52 - #54

GLASS TYPE	SPACER TYPE	INTERIOR LITE	EXTERIOR LITE	GLAZING METHOD
1" IG	Desiccant-filled aluminum box spacer	1/4" tempered	1/4" tempered 0.004" LLumar SHE CL ER PS4	Exterior glazed against a vinyl glazing strip and secured in place using a snap-in aluminum glazing bead at the sill with a bead of Dow Corning 995 structural silicone

LOCATION	QUANTITY	DAYLIGHT OPENING		GLASS BITE
		millimeters	inches	
Fixed window	9	1092 x 1702	43 x 67	1/2"

Drainage: No drainage was utilized.

Hardware: No hardware was utilized.

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**SECTION 8
TEST RESULTS**

The temperature during testing was 19 - 23°C (67 - 73°F). The results are tabulated as follows:

ASTM E1886, AIR PRESSURE CYCLING

Test Specimen #46:

Design Pressure: ±1245 Pa (±26.0 psf)

Positive Pressure

PRESSURE RANGE Pa (psf)	NUMBER OF CYCLES	AVERAGE CYCLE TIME (seconds)	OBSERVATIONS
249 to 622 (5.2 to 13.0)	3500	2.19	Center-punched with no additional cyclic windload damage observed
0 to 747 (0 to 15.6)	300	2.57	No additional damage observed
622 to 996 (13.0 to 20.8)	600	2.92	No additional damage observed
373 to 1245 (7.8 to 26.0)	100	2.76	No additional damage observed

Negative Pressure

PRESSURE RANGE Pa (psf)	NUMBER OF CYCLES	AVERAGE CYCLE TIME (seconds)	OBSERVATIONS
373 to 1245 (7.8 to 26.0)	50	2.94	No additional damage observed
622 to 996 (13.0 to 20.8)	1050	2.95	No additional damage observed
0 to 747 (0 to 15.6)	50	2.94	No additional damage observed
249 to 622 (5.2 to 13.0)	3350	2.68	No additional damage observed

Result: Pass

Note: Test Specimens #46, #47, and #48 were cycled in a common chamber.

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Modified ASTM E1886, Air Pressure Cycling

Test Specimen #46

Design Pressure: ±2394 Pa (±50.0 psf)

Positive Pressure

PRESSURE RANGE Pa (psf)	NUMBER OF CYCLES	AVERAGE CYCLE TIME (seconds)	OBSERVATIONS
0 to 2394 (0 to 50.0)	50	3.33	No additional damage observed

Negative Pressure

PRESSURE RANGE Pa (psf)	NUMBER OF CYCLES	AVERAGE CYCLE TIME (seconds)	OBSERVATIONS
0 to 2394 (0 to 50.0)	50	3.10	No additional damage observed

Design Pressure: ±3112 Pa (±65.0 psf)

Positive Pressure

PRESSURE RANGE Pa (psf)	NUMBER OF CYCLES	AVERAGE CYCLE TIME (seconds)	OBSERVATIONS
0 to 3112 (0 to 65.0)	50	3.15	No additional damage observed

Negative Pressure

PRESSURE RANGE Pa (psf)	NUMBER OF CYCLES	AVERAGE CYCLE TIME (seconds)	OBSERVATIONS
0 to 3112 (0 to 65.0)	50	3.13	No additional damage observed

Result: Pass

Note: Test Specimens #46, #47, and #48 were cycled in a common chamber.

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ASTM E1886, AIR PRESSURE CYCLING

Test Specimen #47:

Design Pressure: ±1245 Pa (±26.0 psf)

Positive Pressure

PRESSURE RANGE Pa (psf)	NUMBER OF CYCLES	AVERAGE CYCLE TIME (seconds)	OBSERVATIONS
249 to 622 (5.2 to 13.0)	3500	2.19	Center-punched with no additional cyclic windload damage observed
0 to 747 (0 to 15.6)	300	2.57	No additional damage observed
622 to 996 (13.0 to 20.8)	600	2.92	No additional damage observed
373 to 1245 (7.8 to 26.0)	100	2.76	No additional damage observed

Negative Pressure

PRESSURE RANGE Pa (psf)	NUMBER OF CYCLES	AVERAGE CYCLE TIME (seconds)	OBSERVATIONS
373 to 1245 (7.8 to 26.0)	50	2.94	No additional damage observed
622 to 996 (13.0 to 20.8)	1050	2.95	No additional damage observed
0 to 747 (0 to 15.6)	50	2.94	No additional damage observed
249 to 622 (5.2 to 13.0)	3350	2.68	No additional damage observed

Result: Pass

Note: Test Specimens #46, #47, and #48 were cycled in a common chamber.

TEST REPORT FOR EASTMAN CHEMICAL COMPANY

Report No.: I7833.01-109-44

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Modified ASTM E1886, Air Pressure Cycling

Test Specimen #47

Design Pressure: ±2394 Pa (±50.0 psf)

Positive Pressure

PRESSURE RANGE Pa (psf)	NUMBER OF CYCLES	AVERAGE CYCLE TIME (seconds)	OBSERVATIONS
0 to 2394 (0 to 50.0)	50	3.33	No additional damage observed

Negative Pressure

PRESSURE RANGE Pa (psf)	NUMBER OF CYCLES	AVERAGE CYCLE TIME (seconds)	OBSERVATIONS
0 to 2394 (0 to 50.0)	50	3.10	No additional damage observed

Design Pressure: ±3112 Pa (±65.0 psf)

Positive Pressure

PRESSURE RANGE Pa (psf)	NUMBER OF CYCLES	AVERAGE CYCLE TIME (seconds)	OBSERVATIONS
0 to 3112 (0 to 65.0)	50	3.15	No additional damage observed

Negative Pressure

PRESSURE RANGE Pa (psf)	NUMBER OF CYCLES	AVERAGE CYCLE TIME (seconds)	OBSERVATIONS
0 to 3112 (0 to 65.0)	50	3.13	No additional damage observed

Result: Pass

Note: Test Specimens #46, #47, and #48 were cycled in a common chamber.

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Report No.: I7833.01-109-44

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ASTM E1886, AIR PRESSURE CYCLING

Test Specimen #48:

Design Pressure: ±1245 Pa (±26.0 psf)

Positive Pressure

PRESSURE RANGE Pa (psf)	NUMBER OF CYCLES	AVERAGE CYCLE TIME (seconds)	OBSERVATIONS
249 to 622 (5.2 to 13.0)	3500	2.19	Center-punched with no additional cyclic windload damage observed
0 to 747 (0 to 15.6)	300	2.57	No additional damage observed
622 to 996 (13.0 to 20.8)	600	2.92	No additional damage observed
373 to 1245 (7.8 to 26.0)	100	2.76	No additional damage observed

Negative Pressure

PRESSURE RANGE Pa (psf)	NUMBER OF CYCLES	AVERAGE CYCLE TIME (seconds)	OBSERVATIONS
373 to 1245 (7.8 to 26.0)	50	2.94	No additional damage observed
622 to 996 (13.0 to 20.8)	1050	2.95	No additional damage observed
0 to 747 (0 to 15.6)	50	2.94	No additional damage observed
249 to 622 (5.2 to 13.0)	3350	2.68	No additional damage observed

Result: Pass

Note: Test Specimens #46, #47, and #48 were cycled in a common chamber.

TEST REPORT FOR EASTMAN CHEMICAL COMPANY

Report No.: I7833.01-109-44

Date: 10/02/18

Modified ASTM E1886, Air Pressure Cycling

Test Specimen #48

Design Pressure: ±2394 Pa (±50.0 psf)

Positive Pressure

PRESSURE RANGE Pa (psf)	NUMBER OF CYCLES	AVERAGE CYCLE TIME (seconds)	OBSERVATIONS
0 to 2394 (0 to 50.0)	50	3.33	No additional damage observed

Negative Pressure

PRESSURE RANGE Pa (psf)	NUMBER OF CYCLES	AVERAGE CYCLE TIME (seconds)	OBSERVATIONS
0 to 2394 (0 to 50.0)	50	3.10	No additional damage observed

Design Pressure: ±3112 Pa (±65.0 psf)

Positive Pressure

PRESSURE RANGE Pa (psf)	NUMBER OF CYCLES	AVERAGE CYCLE TIME (seconds)	OBSERVATIONS
0 to 3112 (0 to 65.0)	50	3.15	No additional damage observed

Negative Pressure

PRESSURE RANGE Pa (psf)	NUMBER OF CYCLES	AVERAGE CYCLE TIME (seconds)	OBSERVATIONS
0 to 3112 (0 to 65.0)	50	3.13	No additional damage observed

Result: Pass

Note: Test Specimens #46, #47, and #48 were cycled in a common chamber.

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Modified ASTM E1886, Air Pressure Cycling

Test Specimen #50

Design Pressure: ±3830 Pa (±80.0 psf)

Positive Pressure

PRESSURE RANGE Pa (psf)	NUMBER OF CYCLES	AVERAGE CYCLE TIME (seconds)	OBSERVATIONS
0 to 3830 (0 to 80.0)	100	3.00	Center-punched with no additional cyclic windload damage observed

Negative Pressure

PRESSURE RANGE Pa (psf)	NUMBER OF CYCLES	AVERAGE CYCLE TIME (seconds)	OBSERVATIONS
0 to 3830 (0 to 80.0)	100	3.00	No additional damage observed

Result: Pass

Note: Test Specimens #50 and #51 were cycled in a common chamber.

Test Specimen #51

Design Pressure: ±3830 Pa (±80.0 psf)

Positive Pressure

PRESSURE RANGE Pa (psf)	NUMBER OF CYCLES	AVERAGE CYCLE TIME (seconds)	OBSERVATIONS
0 to 3830 (0 to 80.0)	100	3.00	Center-punched with no additional cyclic windload damage observed

Negative Pressure

PRESSURE RANGE Pa (psf)	NUMBER OF CYCLES	AVERAGE CYCLE TIME (seconds)	OBSERVATIONS
0 to 3830 (0 to 80.0)	100	3.00	No additional damage observed

Result: Pass

Note: Test Specimens #50 and #51 were cycled in a common chamber.

TEST REPORT FOR EASTMAN CHEMICAL COMPANY

Report No.: I7833.01-109-44

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ASTM E1886, AIR PRESSURE CYCLING

Test Specimen #52:

Design Pressure: ±1245 Pa (±26.0 psf)

Positive Pressure

PRESSURE RANGE Pa (psf)	NUMBER OF CYCLES	AVERAGE CYCLE TIME (seconds)	OBSERVATIONS
249 to 622 (5.2 to 13.0)	3500	2.73	Center-punched with no additional cyclic windload damage observed
0 to 747 (0 to 15.6)	300	2.98	No additional damage observed
622 to 996 (13.0 to 20.8)	600	2.22	No additional damage observed
373 to 1245 (7.8 to 26.0)	100	3.00	No additional damage observed

Negative Pressure

PRESSURE RANGE Pa (psf)	NUMBER OF CYCLES	AVERAGE CYCLE TIME (seconds)	OBSERVATIONS
373 to 1245 (7.8 to 26.0)	50	3.00	No additional damage observed
622 to 996 (13.0 to 20.8)	1050	2.64	No additional damage observed
0 to 747 (0 to 15.6)	50	2.90	No additional damage observed
249 to 622 (5.2 to 13.0)	3350	2.70	No additional damage observed

Result: Pass

Note: Test Specimens #52, #53, and #54 were cycled in a common chamber.

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Modified ASTM E1886, Air Pressure Cycling

Test Specimen #52

Design Pressure: ±2394 Pa (±50.0 psf)

Positive Pressure

PRESSURE RANGE Pa (psf)	NUMBER OF CYCLES	AVERAGE CYCLE TIME (seconds)	OBSERVATIONS
0 to 2394 (0 to 50.0)	50	3.00	No additional damage observed

Negative Pressure

PRESSURE RANGE Pa (psf)	NUMBER OF CYCLES	AVERAGE CYCLE TIME (seconds)	OBSERVATIONS
0 to 2394 (0 to 50.0)	50	3.00	No additional damage observed

Design Pressure: ±3112 Pa (±65.0 psf)

Positive Pressure

PRESSURE RANGE Pa (psf)	NUMBER OF CYCLES	AVERAGE CYCLE TIME (seconds)	OBSERVATIONS
0 to 3112 (0 to 65.0)	50	3.00	No additional damage observed

Negative Pressure

PRESSURE RANGE Pa (psf)	NUMBER OF CYCLES	AVERAGE CYCLE TIME (seconds)	OBSERVATIONS
0 to 3112 (0 to 65.0)	50	3.00	No additional damage observed

Result: Pass

Note: Test Specimens #52, #53, and #54 were cycled in a common chamber.

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ASTM E1886, AIR PRESSURE CYCLING

Test Specimen #53:

Design Pressure: ±1245 Pa (±26.0 psf)

Positive Pressure

PRESSURE RANGE Pa (psf)	NUMBER OF CYCLES	AVERAGE CYCLE TIME (seconds)	OBSERVATIONS
249 to 622 (5.2 to 13.0)	3500	2.73	Center-punched with no additional cyclic windload damage observed
0 to 747 (0 to 15.6)	300	2.98	No additional damage observed
622 to 996 (13.0 to 20.8)	600	2.22	No additional damage observed
373 to 1245 (7.8 to 26.0)	100	3.00	No additional damage observed

Negative Pressure

PRESSURE RANGE Pa (psf)	NUMBER OF CYCLES	AVERAGE CYCLE TIME (seconds)	OBSERVATIONS
373 to 1245 (7.8 to 26.0)	50	3.00	No additional damage observed
622 to 996 (13.0 to 20.8)	1050	2.64	No additional damage observed
0 to 747 (0 to 15.6)	50	2.90	No additional damage observed
249 to 622 (5.2 to 13.0)	3350	2.70	No additional damage observed

Result: Pass

Note: Test Specimens #52, #53, and #54 were cycled in a common chamber.

TEST REPORT FOR EASTMAN CHEMICAL COMPANY

Report No.: I7833.01-109-44

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Modified ASTM E1886, Air Pressure Cycling

Test Specimen #53

Design Pressure: ±2394 Pa (±50.0 psf)

Positive Pressure

PRESSURE RANGE Pa (psf)	NUMBER OF CYCLES	AVERAGE CYCLE TIME (seconds)	OBSERVATIONS
0 to 2394 (0 to 50.0)	50	3.00	No additional damage observed

Negative Pressure

PRESSURE RANGE Pa (psf)	NUMBER OF CYCLES	AVERAGE CYCLE TIME (seconds)	OBSERVATIONS
0 to 2394 (0 to 50.0)	50	3.00	No additional damage observed

Design Pressure: ±3112 Pa (±65.0 psf)

Positive Pressure

PRESSURE RANGE Pa (psf)	NUMBER OF CYCLES	AVERAGE CYCLE TIME (seconds)	OBSERVATIONS
0 to 3112 (0 to 65.0)	50	3.00	No additional damage observed

Negative Pressure

PRESSURE RANGE Pa (psf)	NUMBER OF CYCLES	AVERAGE CYCLE TIME (seconds)	OBSERVATIONS
0 to 3112 (0 to 65.0)	50	3.00	No additional damage observed

Result: Pass

Note: Test Specimens #52, #53, and #54 were cycled in a common chamber.

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ASTM E1886, AIR PRESSURE CYCLING

Test Specimen #54:

Design Pressure: ±1245 Pa (±26.0 psf)

Positive Pressure

PRESSURE RANGE Pa (psf)	NUMBER OF CYCLES	AVERAGE CYCLE TIME (seconds)	OBSERVATIONS
249 to 622 (5.2 to 13.0)	3500	2.73	Center-punched with no additional cyclic windload damage observed
0 to 747 (0 to 15.6)	300	2.98	No additional damage observed
622 to 996 (13.0 to 20.8)	600	2.22	No additional damage observed
373 to 1245 (7.8 to 26.0)	100	3.00	No additional damage observed

Negative Pressure

PRESSURE RANGE Pa (psf)	NUMBER OF CYCLES	AVERAGE CYCLE TIME (seconds)	OBSERVATIONS
373 to 1245 (7.8 to 26.0)	50	3.00	No additional damage observed
622 to 996 (13.0 to 20.8)	1050	2.64	No additional damage observed
0 to 747 (0 to 15.6)	50	2.90	No additional damage observed
249 to 622 (5.2 to 13.0)	3350	2.70	No additional damage observed

Result: Pass

Note: Test Specimens #52, #53, and #54 were cycled in a common chamber.

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Modified ASTM E1886, Air Pressure Cycling

Test Specimen #54

Design Pressure: ±2394 Pa (±50.0 psf)

Positive Pressure

PRESSURE RANGE Pa (psf)	NUMBER OF CYCLES	AVERAGE CYCLE TIME (seconds)	OBSERVATIONS
0 to 2394 (0 to 50.0)	50	3.00	No additional damage observed

Negative Pressure

PRESSURE RANGE Pa (psf)	NUMBER OF CYCLES	AVERAGE CYCLE TIME (seconds)	OBSERVATIONS
0 to 2394 (0 to 50.0)	50	3.00	No additional damage observed

Design Pressure: ±3112 Pa (±65.0 psf)

Positive Pressure

PRESSURE RANGE Pa (psf)	NUMBER OF CYCLES	AVERAGE CYCLE TIME (seconds)	OBSERVATIONS
0 to 3112 (0 to 65.0)	50	3.00	No additional damage observed

Negative Pressure

PRESSURE RANGE Pa (psf)	NUMBER OF CYCLES	AVERAGE CYCLE TIME (seconds)	OBSERVATIONS
0 to 3112 (0 to 65.0)	50	3.00	No additional damage observed

Result: Pass

Note: Test Specimens #52, #53, and #54 were cycled in a common chamber.

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SECTION 9 PHOTOGRAPHS



Photo No. 1
Test Specimen #46

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Photo No. 2
Test Specimen #47

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Photo No. 3
Test Specimen #48

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Photo No. 4
Test Specimen #50 and #51

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Photo No. 5
Test Specimen #52

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Photo No. 6
Test Specimen #53 Impacted with Center Punch

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Photo No. 7
Test Specimen #54 Impacted with Center Punch



Total Quality. Assured.

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Telephone: 717-764-7700
Facsimile: 717-764-4129
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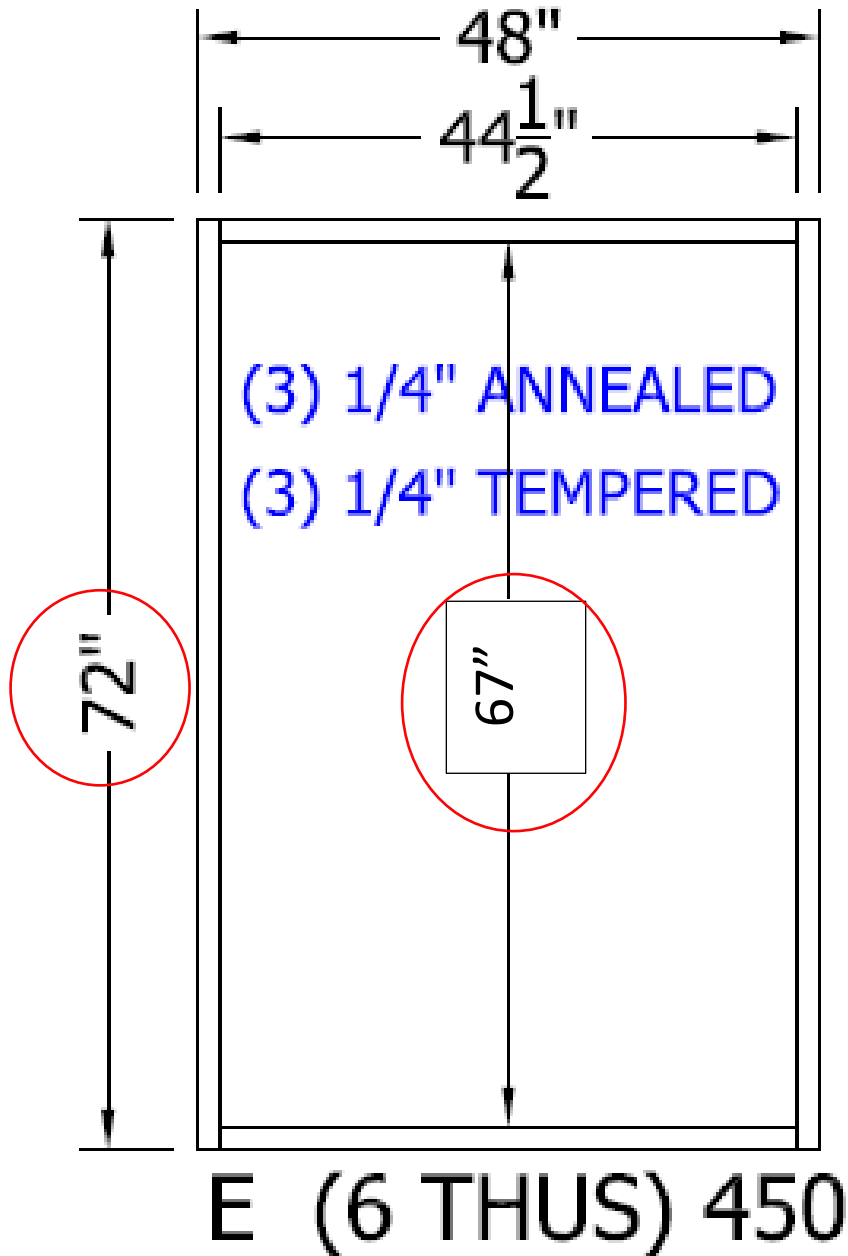
Date: 10/02/18

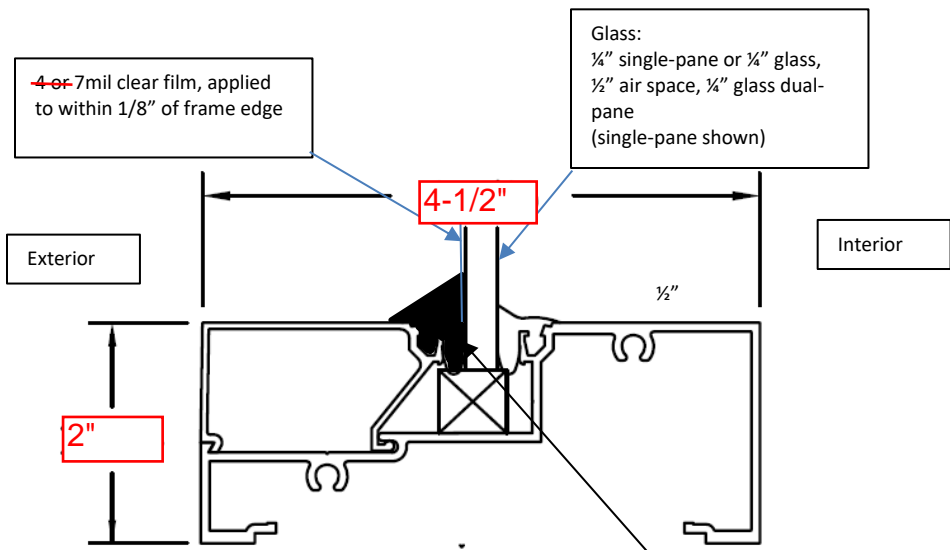
SECTION 10 DRAWINGS

The test specimen drawings have been reviewed by Intertek B&C and are representative of the test specimen(s) reported herein. Test specimen construction was verified by Intertek B&C per the drawings included in this report. Any deviations are documented herein or on the drawings.

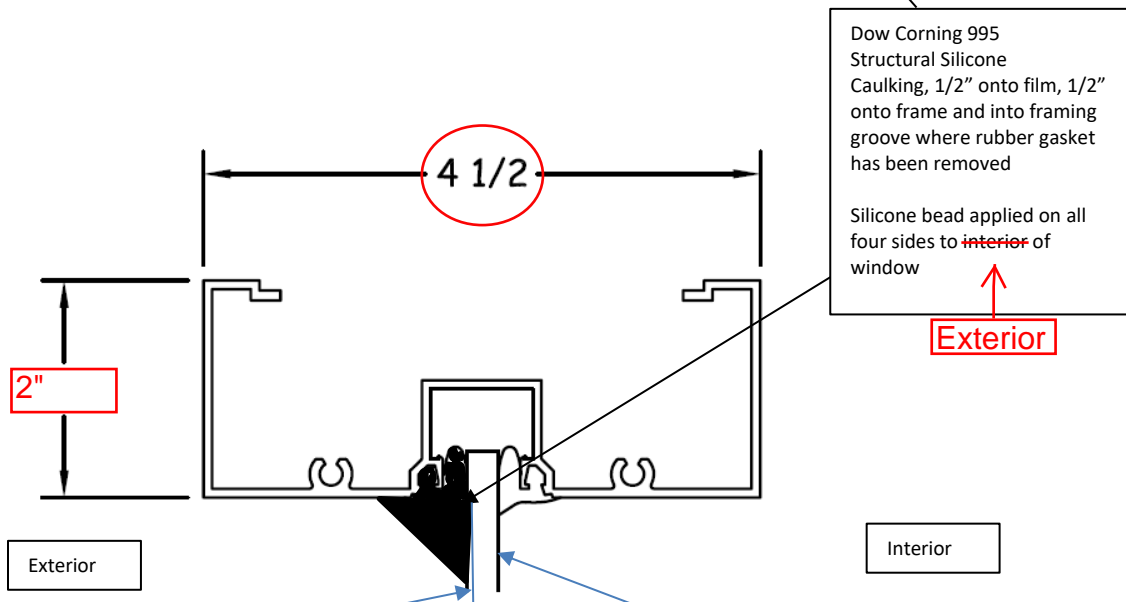
Eastman Chemical
Intertek Quote 1985102R1
ASTM E1886, ASTM E1996 Test Sample Details

Kawneer 450 Aluminum Framing





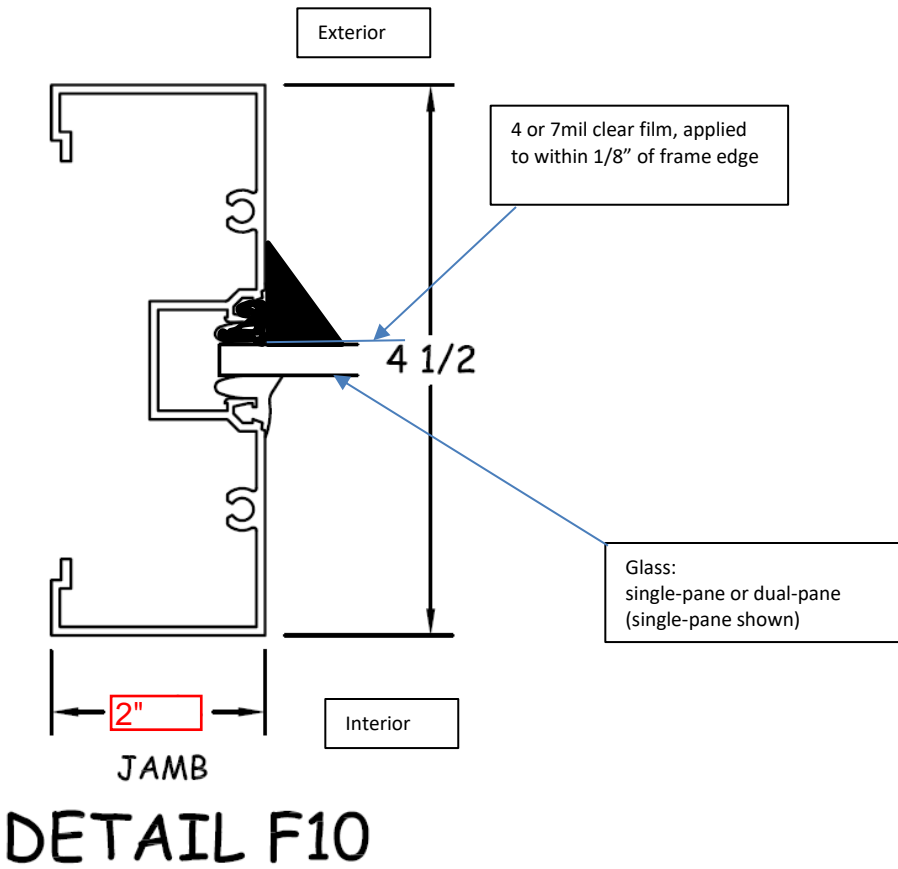
SILL
DETAIL F9



HEAD
DETAIL F12

4 or 7mil clear film, applied to within 1/8" of frame edge

Glass: single-pane or dual-pane (single-pane shown)





Total Quality. Assured.

130 Derry Court
York, Pennsylvania 17406

Telephone: 717-764-7700
Facsimile: 717-764-4129
www.intertek.com/building

TEST REPORT FOR EASTMAN CHEMICAL COMPANY

Report No.: I7833.01-109-44

Date: 10/02/18

SECTION 11

REVISION LOG

REVISION #	DATE	PAGES	REVISION
0	10/02/18	N/A	Original Report Issue