

CLIENT: **SABIC Specialty Film & Sheet**
1 Lexan Lane
Mt Vernon, IN 47620-9367

Test Report No: RJ3959-1	Date: April 30, 2015
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SAMPLE ID: The test samples are identified as: Polycarbonate Lexan Corrugated Sheet, for glazing and roofing applications.

SAMPLING DETAIL: The test materials were delivered to QAI Laboratories by the manufacturer. The test decks were constructed by QAI personnel. No special sampling conditions or sample preparation were observed by QAI.

DATE OF RECEIPT: Samples were received at QAI on April 13, 2015

TESTING PERIOD: April 29, 2015.

AUTHORIZATION: Proposal #DM-2015-041002 Dated April 30, 2015 Signed by Hector Cabrera on April 10, 2015.

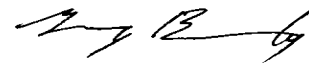
TEST PROCEDURE: Conduct a single **Spread of Flame** test on the submitted samples in accordance with the methods and procedures outlined in ASTM Test Method E108-11, "Standard Test Methods for Fire Tests of Roof Coverings"(E108).

TEST RESULTS: The sample **Meets** the **Class A Spread of Flame** requirements when tested in accordance with ASTM Test Method E108-11, "Standard Method of Fire Tests of Roof Coverings".

Detailed test results are presented in the subsequent pages of this report.

Prepared By:

**Signed for and on behalf of
QAI Laboratories, Inc.**



David Royer
Test Technician

Greg Banasky
Senior Technician

SPREAD OF FLAME TEST PER ASTM E108-11

Test Sample Construction Details

Testing was conducted in accordance with ASTM E108-11. All test deck assemblies were stored indoors at temperatures not lower than 60°F (16°C) nor higher than 90°F (32°C) for the period of time necessary to cure the assembly components prior to testing. Test decks were stored such that each was surrounded by free circulating air. The test decks were assembled by QAI Staff.

A 1/4" Hardy cement board was used as the non-combustible surface for support of the material tested. A picture of the completed deck assembly is provided in the appendix of this report.

Test Details

Spread of Flame – Class A (One Test Deck)

Wind Velocity:	1056 ft/min ± 44 ft/min
Flame Temperature:	1400 ± 50° F
Test Deck Slope:	5" per Horizontal Foot
Flame Application:	10 Minutes

Test Results

Ignition Time:	4 minute, 40 seconds.
Maximum Spread of Flame:	2.5 ft.
Time to Maximum Spread:	9 minutes, 20 seconds.
Lateral Spread of Flame:	None
Flame Front Recession:	None.

Observations

After the ignition of the test sample surface the flame front progressed steadily to the maximum spread distance of 2.5 feet. The flame front did not recede during the ten minute test period.

Conclusion

The sample **Meets** the **Class A Spread of Flame** requirements when tested in accordance with ASTM Test Method E108-11, "*Standard Method of Fire Tests of Roof Coverings*".

CONDITIONS OF ACCEPTANCE FOR CLASSIFICATION BY ASTM E108:

At no time during or after the intermittent flame, spread of flame* or burning brand tests shall:

1. Any portion of the roof covering material be blown or fall off the test deck in the form of flaming or glowing brands that continue to glow after reaching the floor, or
2. The roof deck be exposed, or
3. Portions of the roof deck fall away in the form of particles that continue to glow after reaching the floor.
4. At no time during the Class A intermittent flame or Class A burning brand tests shall there be sustained flaming of the underside of the deck.
- 5.* At the conclusion of the spread of flame tests, the flaming shall not have spread beyond 6 feet for Class A, and there shall have been no significant lateral spread of flame from the path directly exposed to the test flame.