QAI LABORATORIES
CERTIFICATION TESTING INSPECTION

8385 White Oak Avenue
Rancho Cucamonga, CA 91730
909.483.0250 ph. | 909.483.0336 fx.

CLIENT: SABIC INNOVATIVE PLASTICS
1 Lexan Lane
Mt. Vernon, IN 47620
Constantin Donea

Test Report No: RJ0535-1R1	**Date: July 12, 2010**

REVISED REPORT: **This report supersedes all previous reports bearing the reference number RJ0535-1, originally issued on February 22, 2010.**

SAMPLE ID: The Client submitted and identified the following test material as Polycarbonate Multiwall Sheet 25 mm thick, produced and commercialized under the following grade names: LTT3T25, LTC3T25, LTD3T25, LTED3T25, VT32533, VD32533, VC32533, 2XP3T25, LTP3T25, 2XP3T25, LTE3T25, LPD3T25, LED3T25, LTP3T25 and 2XP3T25. Note: Specimens were cut parallel to the ribs of the material.

DATE OF RECEIPT: Samples were received on January 18, 2010.

TESTING PERIOD: February 22, 2010.

AUTHORIZATION: Client's Purchase Order No. 1001278.

TEST REQUESTED: ASTM Designation D635-06 "Standard Test Method for Rate of Burning and/or Extent and Time of Burning of Plastics in a Horizontal Position".

TEST RESULTS: Please refer to page 2.

CLASSIFICATION: The submitted sample is designated HB in accordance with para. X1.2.2.
The submitted sample is classified CC1 in accordance with UBC Standard 26-7, SEC. 26.706.5
See classification requirements on page 2.

Prepared By
Brian Ortega
Test Technician

Signed for and on behalf of QAI Laboratories Inc.
Greg Banasky
Supervisor Fire Technology

TEST RESULTS:

Number of Specimens Tested:	10
Average Specimen Thickness:	25 mm nominal
Range of Time of Burning:	Less than 5 seconds
Range of Extent of burning:	12 to 21 mm

OBSERVATIONS: None specimens burned to the 25 mm mark.

EVALUATION OF TEST FROM APPENDIX X1.

X1.2: Category Designation- The behavior of the specimens can be classified HB (HB = Horizontal Burning) if,

X1.2.1 There is no visible signs of combustion after the ignition source is removed, or

X1.2.2 The flame front does not pass the 25 mm reference mark, or

X1.2.3 The flame front passes the 25 mm reference mark but does not reach the 100 mm reference mark, or

X1.2.4 The flame front reaches the 100 mm reference mark and the linear burning rate does not exceed 40 mm/min. for specimens having a thickness between 3 and 13 mm or 75 mm/min. for specimens having a thickness less than 3 mm.

CLASSIFICATION REQUIREMENTS PER UBC STANDARD 26-7, SEC. 26.706.5

CC1: Plastic materials which have a burning extent of 1 inch (25mm) or less when tested in nominal .060-inch (1.5mm) thickness (or in the thickness intended for use) by this test.

CC2: Plastic materials which have a burning rate of 2.5 inches per minute (64mm/min) or less when tested in nominal 0.060-inch (1.5mm) thickness (or in the thickness intended for use) by this test.

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Test Report No: RJ0535-2R1	**Date: July 12, 2010**

REVISED REPORT: **This report supersedes all previous reports bearing the reference number RJ0535-2, originally issued on February 22, 2010.**

SAMPLE ID: The Client submitted and identified the following test material as Polycarbonate Multiwall Sheet 25 mm thick, produced and commercialized under the following grade names: LTT3T25, LTC3T25, LTD3T25, LTED3T25, VT32533, VD32533, VC32533, 2XP3T25, LTP3T25, 2XP3T25, LTE3T25, LPD3T25, LED3T25, LTP3T25 and 2XP3T25. Note: Specimens were cut parallel to the ribs of the material.. Note: Specimens were cut perpendicular to the ribs of the material.

DATE OF RECEIPT: Samples were received on January 18, 2010.

TESTING PERIOD: February 22, 2010.

AUTHORIZATION: Client's Purchase Order No. 1001278.

TEST REQUESTED: ASTM Designation D635-06 "Standard Test Method for Rate of Burning and/or Extent and Time of Burning of Plastics in a Horizontal Position".

TEST RESULTS: Please refer to page 2.

CLASSIFICATION: The submitted sample is designated HB in accordance with para. X1.2.2.
The submitted sample is classified CC1 in accordance with UBC Standard 26-7, SEC. 26.706.5
See classification requirements on page 2.

Prepared By
Brian Ortega
Test Technician

Signed for and on behalf of QAI Laboratories Inc.
Greg Banasky
Supervisor Fire Technology

TEST RESULTS:

Number of Specimens Tested:	10
Average Specimen Thickness:	25 mm nominal
Range of Time of Burning:	2 to 10
Range of Extent of burning:	12 to 17 mm

OBSERVATIONS: None specimens burned to the 25 mm mark.

EVALUATION OF TEST FROM APPENDIX X1.

X1.2: Category Designation- The behavior of the specimens can be classified HB (HB = Horizontal Burning) if,

X1.2.1 There is no visible signs of combustion after the ignition source is removed, or

X1.2.2 The flame front does not pass the 25 mm reference mark, or

X1.2.3 The flame front passes the 25 mm reference mark but does not reach the 100 mm reference mark, or

X1.2.4 The flame front reaches the 100 mm reference mark and the linear burning rate does not exceed 40 mm/min. for specimens having a thickness between 3 and 13 mm or 75 mm/min. for specimens having a thickness less than 3 mm.

CLASSIFICATION REQUIREMENTS PER UBC STANDARD 26-7, SEC. 26.706.5

CC1: Plastic materials which have a burning extent of 1 inch (25mm) or less when tested in nominal .060-inch (1.5mm) thickness (or in the thickness intended for use) by this test.

CC2: Plastic materials which have a burning rate of 2.5 inches per minute (64mm/min) or less when tested in nominal 0.060-inch (1.5mm) thickness (or in the thickness intended for use) by this test.

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Constantin Donea

Test Report No: RJ0535-3R1 **Date: July 12, 2010**

REVISED REPORT: **This report supersedes all previous reports bearing the reference number RJ0535-3, originally issued on February 22, 2010.**

SAMPLE ID: The Client submitted and identified the following test material as Polycarbonate Multiwall Sheet 25 mm thick, produced and commercialized under the following grade names: LTT3T25, LTC3T25, LTD3T25, LTED3T25, VT32533, VD32533, VC32533, 2XP3T25, LTP3T25, 2XP3T25, LTE3T25, LPD3T25, LED3T25, LTP3T25 and 2XP3T25.

DATE OF RECEIPT: Samples were received on January 18, 2010.

TESTING PERIOD: February 17, 2010.

AUTHORIZATION: Client's Purchase Order No. 1001278.

TEST REQUESTED: Perform standard flame spread and smoke density developed classification tests on the sample supplied by the Client in accordance with ASTM Designation E84-08, "Standard Method of Test for Surface Burning Characteristics of Building Materials". The foregoing test procedure is comparable to UL 723, ANSI/NFPA No. 255, and UBC No. 8-1.

TEST RESULTS:

Flame Spread	Smoke Developed
5	40

For detailed results see page 2.

Prepared By
Brian Ortega
Test Technician

Signed for and on behalf of QAI Laboratories Inc.
Greg Banasky
Supervisor Fire Technology

PREPARATION AND CONDITIONING: The sample material was submitted in three pieces, 22" wide by 96" long. The sample was not supported during testing

E 84 TEST DATA SHEET:

CLIENT: Sabic Innovative Plastics **DATE:** 02/17/10

SAMPLE: Polycarbonate Multiwall Sheet 25 mm thick. See other designations on page 1.

FLAME SPREAD:

IGNITION: 1 minute

FLAME FRONT: 1 foot maximum

TIME TO MAXIMUM SPREAD: 1 minute, 21 seconds

TEST DURATION: 10 minutes

CALCULATION: 8.83 x 0.515 = 4.54

SUMMARY: FLAME SPREAD: 5 **SMOKE DEVELOPED:** 40

SUMMARY OF ASTM E84 RESULTS: Because of the possible variations in reproducibility, the results are adjusted to the nearest figure divisible by 5. Smoke Density values over 200 are rounded to the nearest figure divisible by 50.

In order to obtain the Flame Spread Classification, the above results should be compared to the following table:

NFPA CLASS	IBC CLASS	FLAME SPREAD	SMOKE DEVELOPED
A	A	0 through 25	Less than or equal to 450
B	B	26 through 75	Less than or equal to 450
C	C	76 through 200	Less than or equal to 450

BUILDING CODES CITED:

1. National Fire Protection Association, ANSI/NFPA No. 101, "Life Safety Code", 2006 Edition.

2. International Building Code, 2006 Edition, Chapter 8, Interior Finishes, Section 803.