CLIENT: POLYGAL USA, INC.
P.O. Box 410592
Charlotte, NC 28241-0592
Ron Melvin

Test Report No: 172155-7	**Date: February 10, 2004**

SAMPLE ID: The Client submitted and identified the following test material as 10mm Standard Clear Polygal Structured Polycarbonate sheet.

DATE OF RECEIPT: Entered into SGS USTC sample tracking system on June 23, 2003 as STN 36620.

TESTING PERIOD: November 11, 2003.

AUTHORIZATION: Testing authorized by Ron Melvin.

TEST REQUESTED: Perform standard flame spread and smoke density developed classification tests on the sample supplied by the Client in accordance with ASTM Designation E84-01, "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 Density**
20	390

For detailed results see page 3.

Tested by

Brian Ortega
Test Technician

Signed for and on behalf of
SGS U.S. Testing Company Inc.

Greg Banasky
Supervisor Fire Technology

PREPARATION AND CONDITIONING: The sample material was submitted in three pieces, 24" wide by 96" long, conforming to test chamber dimensions. The sample was supported during testing by 2" hexagonal mesh poultry netting running the length of the test chamber and 1/4" round metal rods placed at two foot intervals across the width of the test chamber.

Prior to testing, the specimen was placed in the conditioning room (maintained at 73.4 ± 5° F and a relative humidity of 50 ± 5%) and allowed to reach moisture equilibrium.

SUMMARY OF ASTM E84 RESULTS: Because of the possible variations in reproducibility, the results are adjusted to the nearest figure divisible by 5.

SAMPLE IDENTIFICATION	FLAME SPREAD	SMOKE DENSITY
10mm Standard Clear Polygal Structured Polycarbonate sheet	20	390

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

NFPA CLASS	UBC CLASS	FLAME SPREAD
A	I	0 through 25
B	II	26 through 75
C	III	76 through 200

BUILDING CODES CITED:

1. National Fire Protection Association, ANSI/NFPA No. 101, "Life Safety Code", 1994 Edition.

2. Uniform Building Code, 1994 Edition, Chapter 8, Interior Finishes, Sections 801-807.

E 84 TEST DATA SHEET:

CLIENT: POLYGAL USA, INC. **DATE:** 11/11/03

SAMPLE: 10mm Standard Clear Polygal Structured Polycarbonate sheet

THICKNESS: 10mm nominal

FLAME SPREAD:

IGNITION: 47 seconds

FLAME FRONT: 4 feet maximum

TIME TO MAXIMUM SPREAD: 3 minutes, 57 seconds

TEST DURATION: 10 minutes

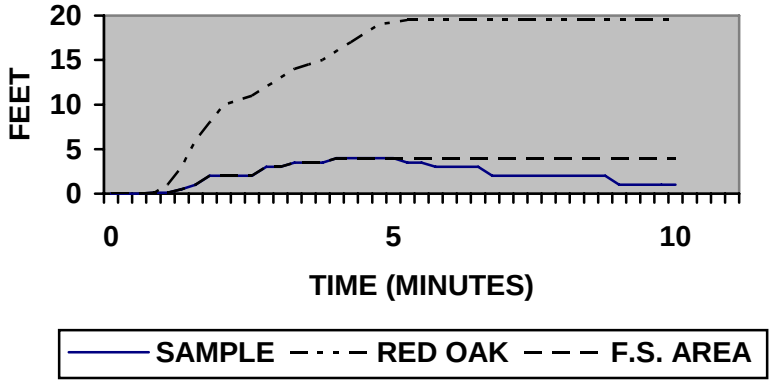
CALCULATION: 38.83 X 0.515 = 20.00

SUMMARY: FLAME SPREAD: 20 **SMOKE DENSITY:** 380

OBSERVATIONS: Sample surface ignition was observed at 47 seconds. A flame front advance of 4 feet was observed at 3 minutes, 57 seconds.

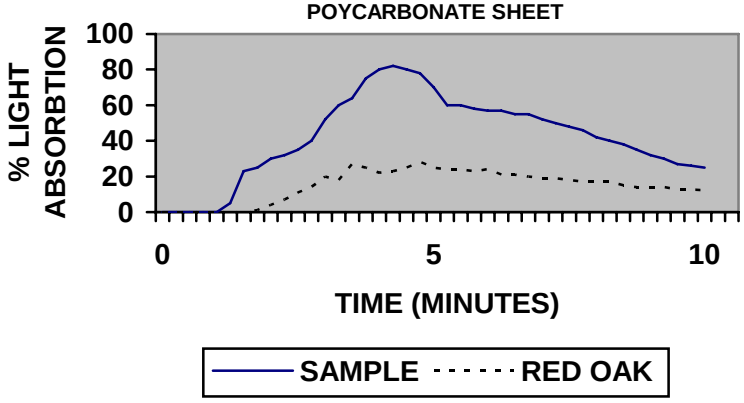
FLAME SPREAD

10MM STANDARD CLEAR POLYGAL STRUCTURED POLYCARBONATE SHEET



SMOKE DEVELOPED

10MM STANDARD CLEAR POLYGAL STRUCTURED POYCARBONATE SHEET



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End of Report