



SGS U.S. Testing Company Inc.

291 Fairfield Avenue  
Fairfield, NJ 07004  
Tel: 973-575-5252  
Fax: 973-575-8271

REPORT NUMBER: 137466-2  
DATE: March 21, 2000  
PAGE 1 OF 6

CLIENT: Aristech Acrylics LLC  
7350 Empire Drive  
Florence, Kentucky 41042

SUBJECT: Surface Burning Characteristics of Building Materials

AUTHORIZATION: Client's Purchase Order Number 17437.

SAMPLE ID: One (1) sample of sheet material was submitted on February 28, 2000  
and identified by the Client as:

MGC 9020 3-1-26-00-20

TEST PROCEDURE: The submitted sample was tested for Flammability in accordance with the  
procedures outlined in ASTM E-84-98.

TEST DATES: March 21, 2000.

PREPARED BY:

Nikolay Kitov, Technician  
Fire Technology

SIGNED FOR THE COMPANY BY:

John Van Houten  
Supervisor

ARS 046.3333

IV

Member of the SGS Group

ANALYTICAL SERVICES • PERFORMANCE TESTING • STANDARDS EVALUATION • CERTIFICATION SERVICES  
SGS U.S. TESTING COMPANY INC. REPORTS ARE FOR THE EXCLUSIVE USE OF THE CLIENT TO WHOM THEY ARE ADDRESSED. ANYONE RELYING ON SUCH REPORTS SHOULD UNDER-  
STAND ALL OF THE DETAILS OF THE ENGAGEMENT. REPORTS REFLECT RESULTS ONLY OF THE STANDARDS OR PROCEDURES IDENTIFIED TO THE TESTS CONDUCTED AND ARE LIMITED  
TO THE SAMPLES TESTED. TEST RESULTS MAY NOT BE INDICATIVE OF THE QUALITIES OF THE LOT FROM WHICH THE SAMPLE WAS TAKEN. SGS U.S. TESTING COMPANY INC. HAS NOT  
CONDUCTED ANY QUALITY CONTROL PROGRAM FOR THE CLIENT. NEITHER THE NAME, SEALS, MARKS NOR INSIGNIA OF SGS U.S. TESTING COMPANY INC. MAY BE USED IN ANY ADVER-  
TISING OR PROMOTIONAL MATERIALS WITHOUT THE PRIOR WRITTEN APPROVAL OF SGS U.S. TESTING COMPANY INC. THIS REPORT SHALL NOT BE REPRODUCED EXCEPT IN FULL WITH-  
OUT THE WRITTEN PERMISSION OF THE SGS U.S. TESTING COMPANY INC. SAMPLES NOT DESTROYED IN TESTING ARE DISPOSED OF AFTER 90 DAYS.

REPORT OF TEST



REPORT NUMBER: 137466-2  
DATE: March 21, 2000  
PAGE 2 OF 6

CLIENT: Aristech Acrylics LLC

#### INTRODUCTION:

This report presents test results of Flame Spread and Smoke Developed Values per ASTM E-84-98. The report also includes Material Identification, Method of Preparation, Mounting and Conditioning of the specimens.

The tests were performed in accordance with the specifications set forth in ASTM E-84-98, "Standard Test Method for Surface Burning Characteristics of Building Materials", both as to equipment and test procedure. This test procedure is similar to UL-723, ANSI No. 2.5, NFPA No. 255 and UBC 42-1.

The test results cover two parameters: Flame Spread and Smoke Developed Values during a 10-minute fire exposure. Inorganic cement board and red oak flooring are used as comparative standards and their responses are assigned arbitrary values of 0 and 100, respectively.

#### PREPARATION AND CONDITIONING:

Three (3) 8-foot x 2-foot of material was laid on a 2-inch galvanized hexagonal wire mesh, supported by steel rods spanning the width of the tunnel.

The sample was conditioned at  $73^{\circ} \pm 5^{\circ}$  Fahrenheit and  $50 \pm 5\%$  relative humidity.

#### TEST PROCEDURE:

The tunnel was thoroughly pre-heated by burning natural gas. When the brick temperature, sensed by a floor thermocouple, had reached the prescribed  $105^{\circ}$  Fahrenheit  $\pm 5^{\circ}$  Fahrenheit level, the sample was inserted in the tunnel and test conducted in accordance with the standard ASTM E-84-98 procedures.

The operation of the tunnel was checked by performing a 10-minute test with inorganic board on the day of the test.

REPORT OF TEST



**REPORT NUMBER:** 137466-2  
**DATE:** March 21, 2000  
**PAGE 3 OF 6**

**CLIENT:** Aristech Acrylics LLC

**TEST RESULTS:**

The test results, calculated in accordance with ASTM E-84-98 for Flame Spread and Smoke Developed Values are as follows:

Test Specimen	:	MGC 9020 3-1-26-00-20
Flame Spread Index*	:	25
Smoke Developed Value*	:	20

\*Rounded off to the nearest 5 units. Graphs of the Flame Spread, Smoke Developed and Time-Temperature are shown on the attached charts at the end of this report.

**OBSERVATIONS:**

Ignition was noted after 155 seconds followed by charring of the specimen directly exposed to the flame as the flamefront advanced 15.07 feet after 9.72 minutes. Afterburn was evident upon test completion.

**RATING:**

The National Fire Protection Association Life Safety Code 101, Section 6-5.3, "Interior Wall and Ceiling Finish Classification", has a means of classifying materials with respect to Flame Spread and Smoke Developed when tested in accordance with NFPA 255, "Method of Test of Surface Burning Characteristics of Building Materials", (ASTM E-84).

The classifications are as follows:

Class A Interior Wall & Ceiling Finish:	Flame Spread -	0-25;
	Smoke Developed -	0-450
Class B Interior Wall & Ceiling Finish:	Flame Spread -	26-75;
	Smoke Developed -	0-450
Class C Interior Wall & Ceiling Finish:	Flame Spread -	76-200;
	Smoke Developed -	0-450

Since the sample received a Flame Spread of 25 and a Smoke Developed Value of 20, it would fall into the Class A Interior Wall & Ceiling Finish Category.

\*\*\*\*\*

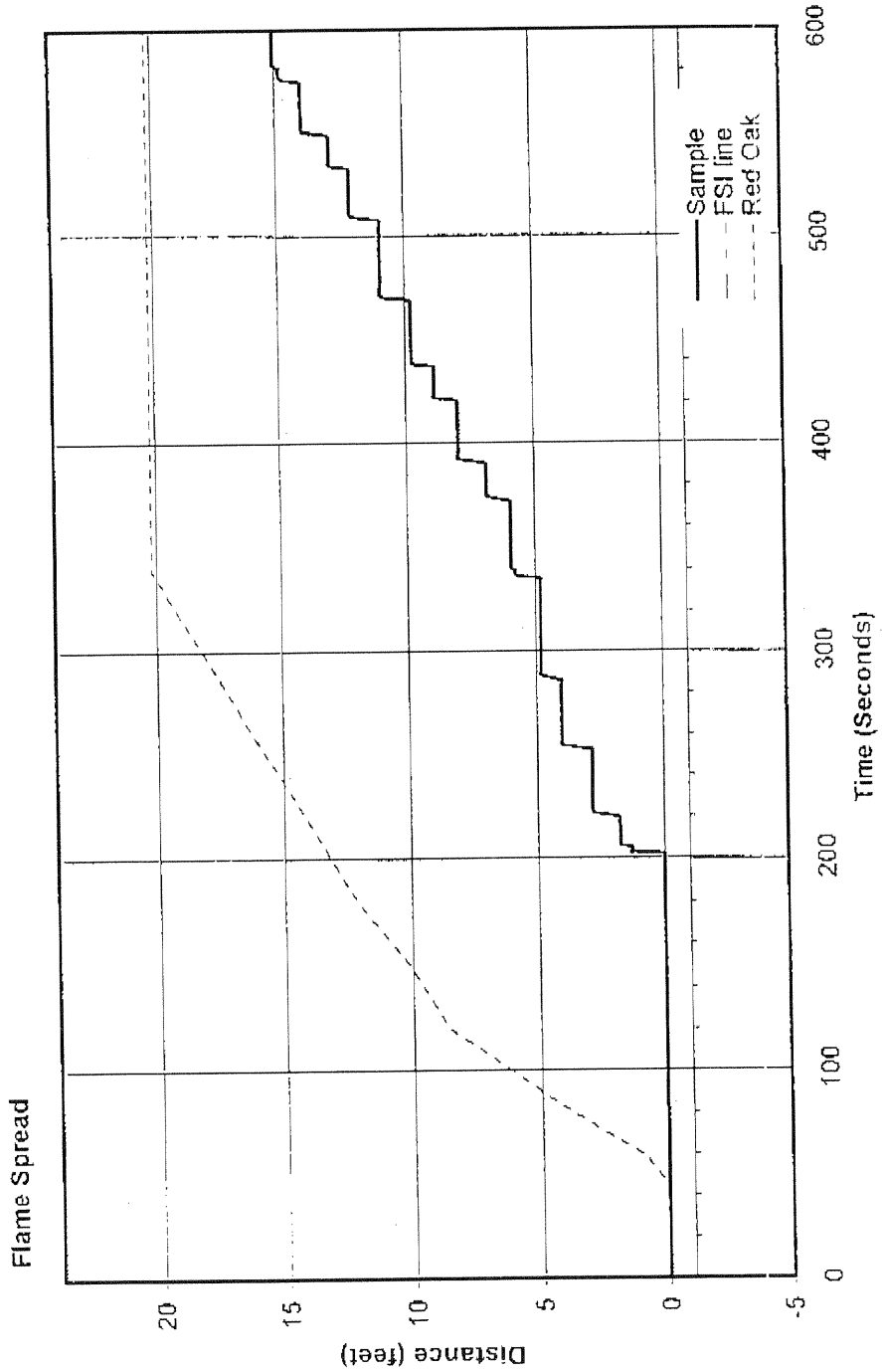
End of Report

# REPORT OF TEST

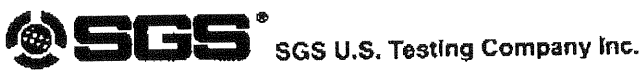


SGS U.S. Testing Company Inc.

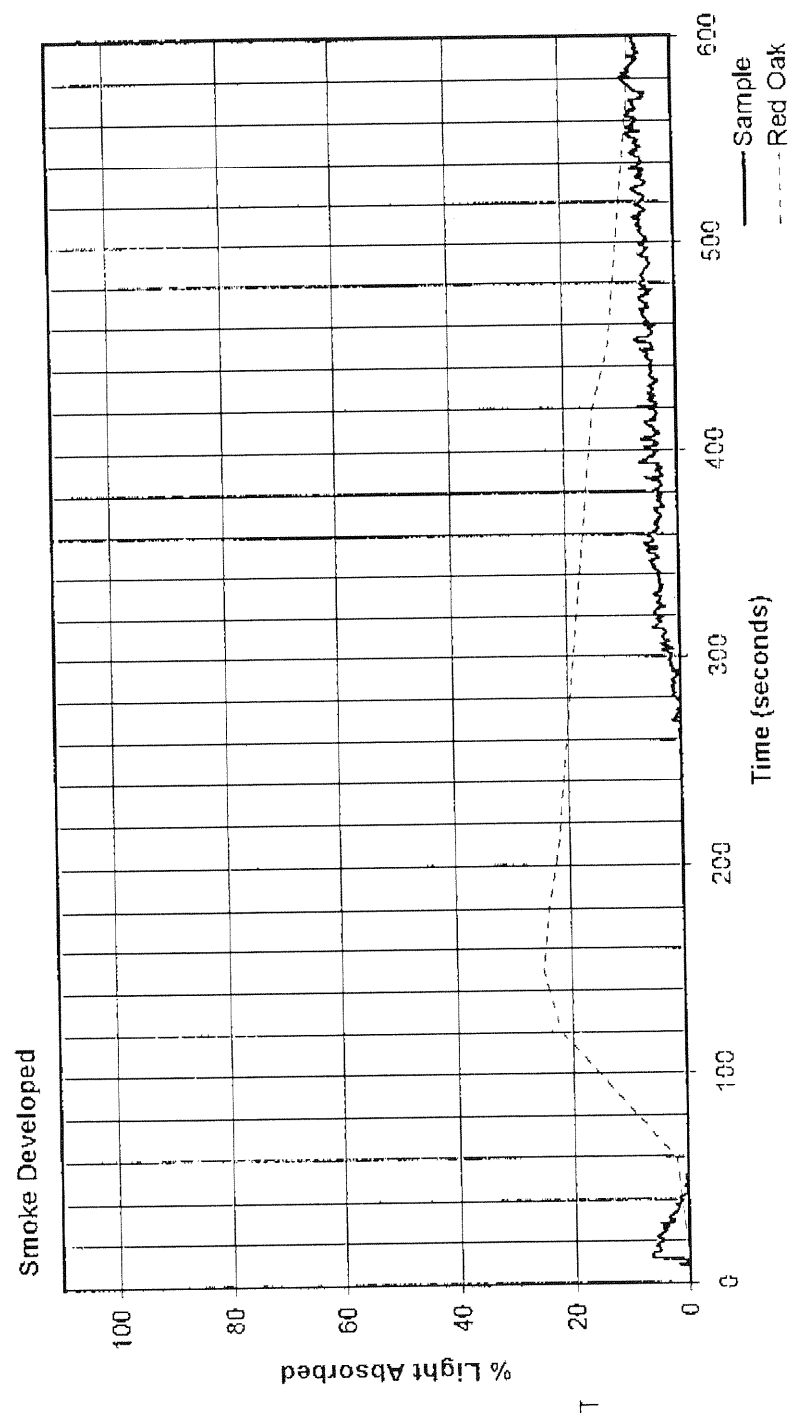
Client: Aristech Acrylics, LLC  
Report No. 137466-2  
Sample ID: MGC 9020 3-1-26-00-20  
Page 4 of 6



# REPORT OF TEST



Client: Aristech Acrylics, LLC  
Report No. 137466-2  
Sample ID: MGC 9020 3-1-26-00-20  
Page 5 of 6





# REPORT OF TEST

Client: Aristech Acrylics, LLC  
Report No. 137466-2  
Sample ID: MGC 9020 3-1-26-00-20  
Page 6 of 6

