CLIENT: **Garware Polyester LTD.**
Aurangabad-Pune Rd., P.O. Waluj
Aurangabad 431 133
India

Test Report No: 169478-2	**Date: March 30, 2005**

The following sample was submitted by the Client as: 200 Micro Clear Safety Film

DATE OF RECEIPT: **MAY 5, 2004**

TESTING PERIOD: **MARCH 30, 2005**

AUTHORIZATION: **Clients Letter**

TEST REQUESTED: The submitted sample was tested for Surface Burning Characteristics in accordance with the procedures outlined in ASTM E84-04.

TEST RESULTS: Continued on the following pages

PREPARED BY:

Bill Booth, Technician
Fire Technology
dl

SIGNED FOR AND ON BEHALF OF
SGS U.S. TESTING COMPANY INC.

Dominick Lepore, Lab Supervisor
Fire Technology

This report is issued by SGS U.S. Testing Company Inc. under its General Conditions for Testing Services, as printed on reverse side. SGS U.S. Testing's responsibility under this report is limited to proven negligence and will in no case be more than the amount of the testing fees. Except by special arrangement, samples are not retained by SGS U.S. Testing for more than 30 days. The results shown on this test report refer only to the sample(s) tested unless otherwise stated, under the conditions agreed upon. Anyone relying on this report should understand all of the details of the engagement. Neither the name, seals, marks nor insignia of SGS U.S. Testing may be used in any advertising or promotional materials without the prior written approval of SGS U.S. Testing. The test report cannot be reproduced, except in full, without prior written permission of SGS U.S. Testing Company Inc.

Member of the SGS Group (Société Générale de Surveillance)

CLIENT: Garware Polyester LTD.

RESULTS:

INTRODUCTION:

This report presents test results of Flame Spread and Smoke Developed Values per ASTM E-84-04. 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-84-04, 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:

Six pieces of glass 21 inches wide X 4 feet long with the clients film adhered to the glass per instructions, was place into the fire chamber end to end supported on screen and rods to form a 24 foot long specimen for testing.

The sample was conditioned at 73° ± 5° Fahrenheit and 50 ± 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° Fahrenheit ± 5° Fahrenheit level, the sample was inserted in the tunnel and test conducted in accordance with the standard ASTM E-84-04 procedures.

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

CLIENT: Garware Polyester LTD.

RESULTS:

TEST RESULTS:

The test results, calculated in accordance with ASTM E-84-04 for Flame Spread and Smoke Developed Values are as follows:

Test Specimen	: 200 Micro Clear Safety Film
Flame Spread Index*	: 15
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 at 47 seconds followed by charring, flaking, flaking ambers, bubbling, cracking, blistering, melting, flaming dripping, and floor burning. At the conclusion of the test there was after burning on the tunnel floor.

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 15 and a Smoke Developed Value of 20, it would fall into the Class A Interior Wall & Ceiling Finish Category.

****

End of Report