

United States Testing Company, Inc.

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REPORT OF TEST

Engineering Services

CLIENT: No Fire Technologies Inc.

NUMBER: 117058-4

21 Industrial Avenue

Upper Saddle River, N.J. 07458

January 31, 1996

SUBJECT: Surface Burning Characteristics of Building Materials

REFERENCE:

No Fire Technologies Inc., Purchase Order No. 96-NF0660 dated January 16, 1996.

Sample Recd.: 1-25-96

Test Date: 1-25-96

TEST PERFORMED:

The submitted sample was tested for Flammability in accordance with the procedures outlined in ASTM E84-94.

SAMPLE IDENTIFICATION:

One (1) sample was submitted and identified by the Client as:

No Fire Formula A on Tongue in Groove Douglas Fir Flooring at 3.8 mils DFT/265 Sq. Ft./Gal.

Testing Supervised by:

SIGNED FOR THE COMPANY

BY:

Page 1 of 7

lv

Steve Caldarola Dept. Manager Fire Technology

Frank Pepe, Director Performance Testing & Standards Evaluation

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INTRODUCTION:

This report presents test results of Flame Spread and Smoke Developed Values per ASTM E84-94. 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 E84-94, "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:

The Formula A coating was applied to three (3) 24" x 8'0" sections of tongue in groove Douglas Fir flooring. The preparation was performed by No Fire Technologies, Inc. personnel.

The panels were tested "as received". No conditioning was performed prior to test.

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 \pm 5° Fahrenheit level, the sample was inserted in the tunnel and test conducted in accordance with the standard ASTM E84-94 procedures.

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



CLIENT: No Fire Technologies Inc. NUMBER: 117058-4

TEST RESULTS:

The test results, calculated in accordance with ASTM E84-94 for Flame Spread and Smoke Developed Values are as follows:

Test Specimen:

Formula A/Douglas Fir

Flame Spread Index*:

15

Smoke Developed Value*:

40

*Graphs of the Flame Spread, Smoke Developed and Time-Temperature are shown in Figures 1, 2 and 3 at the end of this report.

OBSERVATIONS:

Ignition was noted at 2 minutes along with charring and blistering of the specimen directly exposed to the flame. The flamefront advanced a maximum distance of 6 feet at 9 minutes, 10 seconds. Considerable afterburn and afterglow were evident upon test completion.



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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 E84).

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 40 it would fall into the Class A Interior Wall & Ceiling Finish category.

ADDITIONAL REQUIREMENTS:

 $\hbox{N.Y.C.H.A.}$ Specification Class A Rating: Flame Spread 25 or less and Smoke Developed 50 or less on unprimed Douglas Fir.

CONCLUSION:

The submitted sample meets the N.Y.C.H.A. Specification when tested to ASTM E84 (UL723, NFPA 255, UBC 42-1/8-1).