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**NFPA 701 - 2004
STANDARD METHODS OF FIRE TESTS FOR
FLAME PROPAGATION OF TEXTILES AND
FILMS (TEST METHOD 2)**

MATERIAL ID: *Membrane DF09/TABAC*


**FINAL REPORT
Consisting of 3 Pages
SwRI Project No: 01.14434.04.030**

**Test Date: June 30, 2009
Report Date: July 6, 2009**


Prepared for:

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INTRODUCTION

This report presents the results of a specimen submitted by the Client, and tested at Southwest Research Institute's (SwRI's) Fire Technology Department, located in San Antonio, Texas. The test was conducted in accordance with the procedures outlined in NFPA 701, 2004 Edition, *Standard Methods of Fire Tests for Flame Propagation of Textiles and Films* (Test Method 2).

This method is intended for use in determining the resistance of fabrics and films to propagation of flame beyond the area exposed to the source of ignition. This method shall apply to single-layer fabric and multilayer curtain and drapery assemblies while suspended in a vertical configuration. However, where durability to cleaning or weathering is claimed, the fabric or material shall be tested for flame resistance as produced and after being subjected to the applicable cleaning or laundering procedure. The results of this test do not necessarily indicate whether the material tested will resist the propagation of flame under severe exposure or when used in a manner that differs substantially from the test conditions.

Ten individual test specimens shall be cut from a single piece of the material to be evaluated: 125 × 1200 mm (4.90 × 47.25 in.) for flat strips, and 610 × 1200 mm (24 × 47.25 in.) for folds, with the length parallel to the lengthwise direction of the material. Only specimens that cannot be folded shall be tested in the flat configuration.

Each specimen shall be conditioned in an oven at a temperature of 105 °C ± 3 °C for not less than 1 h, and no more than 3 h before testing.

Each specimen is mounted on the support hanger in the test cabinet. The burner is placed 100 mm (3.94 in.) away from the specimen with the center axis of the burner at a 25-degree angle in line with the bottom of the center of the specimen and is maintained for a 120-s exposure time.

The afterflame time of the specimen (time of burning of the specimen after the gas flow is turned off) and the time of burning of material that falls to the bottom of the chamber shall be measured and recorded.

The requirements for acceptance of the NFPA 701 (Test Method 2) are:

1. Where fragments or residues of specimens that fall to the floor of the test chamber continue to burn for more than 2 s, the material shall be recorded as failing the test.
2. Where the char length exceeds 435 mm (17.1 in.) for flat specimens or 1050 mm (41.3 in.) for fold specimens, the material shall be recorded as failing the test.
3. Where the afterflame exceeds 2 s, the material shall be recorded as failing the test.
4. Where the specimens do not demonstrate performance in accordance with any of the conditions indicated in the above, the material shall be recorded as passing the test and shall be designated as flame resistant.

The results apply specifically to the specimens tested, in the manner tested, and not to the entire production of these or similar materials, nor to the performance when used in combination with other materials.

This standard should be used to measure and describe the properties of materials, products, or assemblies in response to heat and flame under controlled laboratory conditions and should not be used to describe or appraise the fire hazard or fire risk of materials, products, or assemblies under actual fire conditions. However, results of this test may be used as elements of a fire risk assessment, which takes into account all of the factors, which are pertinent to an assessment of the fire hazard of a particular end use.

NFPA 701 TEST REPORT (TEST METHOD 2)

MATERIAL DESCRIPTION PROVIDED BY NEWMAT USA LTD.

Date Received: June 29, 2009
Material ID: Membrane DF09/TABAC
Trade Name: Newmat
Description: PVC Membrane with applied flocking microperforated
Composition: PVC Membrane with synthetic flocking
Color: Brown (White on other side*)
Specimen Size:* 613 mm wide × 1184 mm long (nominal)
Weight:* 287 g (nominal)
Thickness:* 0.5 mm (nominal)

* Measured by SwRI personnel.

Preparation: Eleven specimens were received ready to test. The specimens were placed in an oven and maintained at 105 °C for 1 h before testing. The specimens were then removed from the conditioning chamber and secured into the test chamber and tested. The specimens were tested in folds.

TEST DATA - Single Sheets (4 specimens)

Test Date: June 30, 2009

Specimen No.	Char Length (mm)	Afterflame Time (s)	Burning on Floor (s)	Pass/Fail
1	398	2	None	Pass
2	378	None	None	Pass
3	225	None	None	Pass
4	311	None	None	Pass

Observations: The material produced high amounts of dense smoke.

CONCLUSIONS

Based on the test results and the classification criteria, the specimen identified as *Membrane DF09/TABAC* meets the requirements established under the NFPA 701 (Test Method 2).