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CHEMISTRY AND CHEMICAL ENGINEERING DIVISION
DEPARTMENT OF FIRE TECHNOLOGY
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NFPA 701 - 1999
"STANDARD METHODS OF FIRE TESTS FOR FLAME-RESISTANT TEXTILES AND FILMS"
(TEST METHOD 2)

TEST REPORT
CONSISTING OF 5 PAGES

MATERIAL ID.: COOLNET

SwRI PROJECT NO: 01.10083.01.237
TEST DATE: SEPTEMBER 14, 2004
REPORT DATE: OCTOBER 4, 2004

Submitted by:

A. L. Sauceda

JH

ANTHONY L. SAUCEDA
SENIOR ENGINEERING TECHNOLOGIST

Prepared for:

SHADE SYSTEMS
4350 N.W. 19TH AVENUE, UNIT G
POMPANO BEACH, FL 33064

Approved by:

Gladys M. Miller/for

MARC. L. JANSSENS, PH.D.
DIRECTOR
DEPARTMENT OF FIRE TECHNOLOGY

INTRODUCTION

This report presents the results of NFPA 701 Test Method 2 on a specimen submitted by the Client, tested at Southwest Research Institute's (SwRI's) Department of Fire Technology, located in San Antonio, Texas. The test is conducted in accordance with the procedure outlined in "Standard Methods of Fire Tests for Flame-Resistant Textiles and Films (NFPA 701 Test Method 2, 1999)".

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 multi layer 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: for flat strips, a size 1.25 mm x 1.20 m (4.90 in. x 47.25 in.); for folds, a size of 610 mm x 1.2 m (24 in. x 47.25 in.), 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 hour, no more than 3 hours before testing.

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

The after flame 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 seconds, 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 (41.34 in.) for fold specimens, the material shall be recorded as failing the test.

3. Where the after flame exceeds 2 seconds, 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)

CLIENT: Shade Systems
SWRI PROJECT NO: 01.10083.01.237

MATERIAL DESCRIPTION

Material ID.:*	CoolNet
Trade Name:*	CoolNet
Description:*	Tape and monofilament knitted shade fabric, manufactured from 100% high-density polyethylene (HDPE) with U.V. stabilizers and flame retardant (received on August 6, 2004)
Color:*	Forest Green
Thickness:	0.04 in.

* From Client's material description and/or instructions

PREPARATION

The specimens (provided by the Client) were cut to size and placed in an oven and maintained at 105°C for one hour before testing. The specimens were then removed from the conditioning chamber and secured into the test chamber and tested.

TEST DATA (room conditioned)

Specimen No.	Char Length (in.)	Afterflame Time (sec)	Burning On Floor (sec)	Pass/Fail
1	5.00	None	None	Pass
2	5.75	None	None	Pass
3	5.75	None	None	Pass
4	6.75	None	None	Pass
5	6.75	None	None	Pass
6	5.75	None	None	Pass
7	9.25	None	None	Pass
8	8.75	None	None	Pass
9	9.25	None	None	Pass
10	5.25	None	None	Pass

OBSERVATIONS

There were no flaming droplets or burning pieces falling on to the floor in any run.

NFPA 701 TEST REPORT
(TEST METHOD 2)

CLIENT: Shade Systems
SWRI PROJECT NO: 01.10083.01.237

PREPARATION

The specimens (provided by the Client) were cut to size and immersed in a 70°F water bath for 72 hours. They were then placed in an oven and maintained at 105°C for one hour before testing. The specimens were then removed from the conditioning chamber and secured into the test chamber and tested.

TEST DATA (with water leaching)

Specimen No.	Char Length (in.)	Afterflame Time (sec)	Burning On Floor (sec)	Pass/Fail
1	7.25	None	None	Pass
2	8.00	None	None	Pass
3	6.25	None	None	Pass
4	7.25	None	None	Pass
5	8.25	None	None	Pass
6	6.00	None	None	Pass
7	7.25	None	None	Pass
8	7.75	None	None	Pass
9	7.25	None	None	Pass
10	8.25	None	None	Pass

OBSERVATIONS

There were no flaming droplets or burning pieces falling on to the floor in any run.

CONCLUSIONS

Based on the test results and the above mentioned classification criteria, the specimen identified as CoolNet, passed the requirements established under the NFPA 701 Test Method 2 and the accelerated water leaching protocol.

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January 18, 2010

Ms. Tammy Talbot
Shade Systems Inc.
4150 SW 19th Street
Ocala, FL 34474

Subject: SwRI® Project No. 01.15216.01.609 **ENGINEERING EVALUATION**

Dear Ms. Talbot:

This letter is in reference to a test program conducted at Southwest Research Institute's (SwRI) Department of Fire Technology, located in San Antonio, Texas. Testing was performed in accordance to the 1999 edition of the NFPA 701 (Test Method 2), *Standard Methods of Fire Tests for Flame Propagation of Textiles and Films.*

The material was identified as "CoolNet" and was described as "tape and monofilament knitted shade fabric, manufactured from 100% high-density polyethylene (HDPE) with U.V. stabilizers and flame retardant." This fire performance evaluation was conducted for Shade Systems Inc., located in Pompano, Florida, under SwRI Project No. 01.10083.01.237, on October 4, 2004.

The NFPA 701-1999 and the NFPA 701-2004 test procedures are technically equivalent. In addition, the requirements for acceptance did not change between these two editions. Based on the test results of the above referenced test (SwRI Final Report No. 01.10083.01.237), it is the opinion of SwRI that the material identified as "CoolNet" would also meet the requirements for acceptance using the 2004 Edition of the NFPA 701.

If you have any questions of if I can be of further assistance, please feel free to contact me by phone at (210) 522-3280, by fax at (210) 522-3377, or e-mail to Christina.gomez@swri.org.

Sincerely,

Christina Gomez
Engineer
Fire Testing Services Section

Approved by:

Barry L. Badders, M.E., P.E.
Manager
Fire Testing Services Section

CG/llr
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