

Received: 12/11/2009 Completed: 12/14/2009 Letter: Q rb P.O.#: Test Report #: 2-81398-0-

Client's Identification Style: Lotus. Content: 100% Polyester.

Tested For: **John Hearn**
Interspec
PO Box 705
Allenwood, NJ 08720

Key Test: NFPA 701-2004 TM#1 180
Tel: 1-(732)-938-4114 Ext:
Fax: 1-(732)-938-9083

PC: 0.5H

TEST PERFORMED: NFPA 701 - Standard Methods of Fire Tests for Flame Propagation of Textiles and Films - 2004 Edition - Test Method #1

PRODUCT CONFIGURATION: Single Layer; Multi Layer

RESULTS REPORTED: Initially; After 3 dry cleanings; After 5 launderings @ 160°F

RESULTS:

Specimen #	Afterflame* (seconds)	Flaming Drip (seconds)	Weight Loss (percent)	Flame Projects Above Top Of Specimen (yes/no)
1	0	0	11.8	No
2	0	0	15.5	No
3	0	0	19.1	No
4	0	0	11.0	No
5	0	0	27.4	No
6	0	0	25.5	No
7	0	0	24.1	No
8	0	0	20.0	No
9	0	0	12.7	No
10	0	0	16.8	No
	Mean:	0	Mean:	18.4

STATISTICAL VALUES: SD = 5.8 3 SD = 17.5 Mean + 3 SD = 35.9

ABBREVIATIONS USED: SD = Standard deviation. NT = Not tested.

APPROXIMATE WEIGHT OF MATERIAL (as measured by Govmark): 176 g/m²

PRECONDITIONING: 0.5 hr @ 220°F (Standard)
 24 hrs @ 68±9°F (Alternate: Material shrinks/distorts @ 220°F)

CONVERSION FACTOR: g/m² ÷ 28.35 x .835 = oz/yd²

NOTE:

- All specimens prepared in the length direction.
- See addendum for individual specimen weights.

REMARKS: None.

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FAILURE CRITERIA: As cited by NFPA 701 - 2004 Edition Test Method #1 (see Comments on page 3)

Afterflame	Flaming Drip (Mean)	Weight Loss (percent)	
		Mean	Individual Specimen
*	Exceeds 2 seconds	Exceeds 40%	Exceeds Mean + 3 SD

CONCLUSION: Based on the Results on page 1 and the above Failure Criteria cited by NFPA 701 - 2004 Edition Test Method #1, the item tested:

[x] Passes; [] Fails; [] Requires testing of 10 additional specimens
 i.e. only one individual specimen failure was noted

REVISED FAILURE CRITERIA (see Comments on page 3):

Afterflame	Flaming Drip (Mean)	Weight Loss		Flame Height (Individual Specimen)
		Mean	Ind. Spec.	
*	Exceeds 2 seconds	Exceeds 40%	Exceeds 50%	Projects above top of specimen

CONCLUSION: Based on the Results on page 1 and the above Revised Failure Criteria, the item tested:

[x] Passes; [] Fails; [] Requires testing of 10 additional specimens
 i.e. only one individual specimen failure was noted

* Afterflame is required to be recorded; however, the NFPA document does not factor it into the Failure Criteria reporting requirements. It should be noted that excessive afterflames (15 seconds or more) could be cause for rejection by local fire authorities performing "match" field tests.

CERTIFICATION: I certify that the above results were obtained after testing specimens in accordance with the procedures and equipment specified by NFPA 701 - 2004 Edition Test Method #1 with additional recording of flame height.

Heather E. Robertson

AUTHORIZED SIGNATURE
 THE GOVMARK ORGANIZATION, INC. / ec

HEATHER ROBERTSON

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COMMENTS:

The Govmark Org., Inc. has determined to establish failure criteria over and above the criteria spelled out in the NFPA document. The rationale for the "revised" criteria is as follows:

Weight Loss - Individual Specimen Failure:

The NFPA 701 document, as written, provides for a statistical calculation which provides for retest and a potential failure if any individual value exceeds the mean by three standard deviations. Govmark is of the opinion that this cannot mathematically occur, i.e. no individual result is mathematically capable of exceeding the mean plus three standard deviations. Therefore, Govmark has established 50% as the absolute number for individual specimen criteria.

Individual Specimen - Flame Projects Above Top of Specimen:

When NFPA introduced the weight loss criteria, this was hailed as a more objective measure of product performance over previous editions, which relied on visual measurements of fire degradation. Unforeseen were those products which are composed of finishes over substantially non burning substrates. Intense flaming of the finishes occurs without substantially reducing the total weight of the specimen that was tested. It is believed that similar behavior of the intensely burning surface finishes on products made from such material could result in the ignition of nearby combustibles.

Client Name : Interspec
Addendum to Test Report # : 2-81398-0-Q
Test : NFPA 701

<u>Specimen #</u>	<u>Weight Before Test (g)</u>	<u>Weight After Test (g)</u>	<u>Percent Weight Loss</u>
1	11.00	9.70	11.8
2	11.00	9.30	15.5
3	11.00	8.90	19.1
4	10.90	9.70	11.0
5	10.60	7.70	27.4
6	11.00	8.20	25.5
7	11.20	8.50	24.1
8	11.00	8.80	20.0
9	10.20	8.90	12.7
10	11.30	9.40	16.8

Mean Percent Weight Loss : 18.4
Standard Deviation : 5.8
3 x Standard Deviation : 17.5
Mean + 3 x Standard Deviation : 35.9