Flammability Certificate
AM001 Felt 2mm

DESIGNTEX

AM001 Felt 2mm was tested and met the following flammability requirements:

ASTM E 84 Adhered Class A
CA TB 117-2013
NFPA 701 TM#1

800.221.1540
designtex.com
Updated 06.05.23

TEXTILE TESTING
CERTIFIED BEAUTY

Report Number: 83833
Date: 12-7-2016

CERTIFICATE OF TESTING

For the Account Of: Designtex
357 County Avenue
Secaucus, NJ 07094
Contact: Teesha Prezeau

Client's Identification: 2mm Felt

TEST PERFORMED Standard Method of Test for Surface Burning Characteristics of Building Materials ASTM E84-15b Adhered to GRC Board

TEST RESULTS

Test Specimen	Flame Spread Index	Smoke Developed Index
Reinforced Cement Board	0	0
Red Oak Flooring	100	100
2mm Felt	25	5

Specimen Data

Time to Ignition	00.30 (min)
Maximum Flame Spread	05.16 (ft)
Time to Maximum Flame Spread	00.95 (min)

ACCEPTANCE CRITERIA

Class	Flame Spread Index	Smoke Development Rating
1 or A	0 - 25	0 - 450 maximum
2 or B	26 - 75	0 - 450 maximum
3 or C	76 - 200	0 - 450 maximum

CONCLUSION Based on the above Results and Acceptance Criteria, the item tested is:

- ☒ Class 1 or A
- ☐ Class 2 or B
- ☐ Class 3 or C
- ☐ Unrated

DISCUSSION

This test is certified for ASTM E84 by the Southern Building Code Congress International (SBCCI) as a testing laboratory for Fire and Materials testing, Evaluation Report Number TL-9606 (Commercial Testing), and by the United States Department of Commerce, National Institute of Standards and Technology (NIST), through the National Voluntary Laboratory Accreditation Program (NVLAP) for compliance with criteria set forth in NIST Handbook 150:2001, all requirements of ISO/IEC 17025:1999, and relevant requirements of ISO 9002:1994.

This report is provided for the exclusive use of the client to whom it is addressed. It may be used in its entirety to gain product acceptance from daily-constituted authorities. The test results presented in this report apply only to the samples tested and are not necessarily indicative of apparent identical or similar materials. The client provided sample selection and identification. A sampling plan, if described in the referenced test procedure, was not necessarily followed. This report shall not be used under any circumstance in advertising to the general public.

Introduction

This report is a presentation of results of a surface flammability test on a material submitted by client.

The test was conducted in accordance with the American Society for test and Materials fire test response standard E84-15, Surface Burning Characteristics of Building Materials, sometimes referred to as the Steiner Tunnel test. This test is applicable to exposed surfaces such as walls and ceilings. The test is conducted with the specimen in the ceiling position with the surface to be evaluated exposed face down to the ignition source. The method, which is similar to NFPA No. 255 and UL No. 723, is an American Nationals (ANSI) Standard and has been approved for use by agencies of the Department of Defense for listing in the DoD Index of Specifications and Standards.

This standard is used to measure and describe the response of materials, products, or assemblies to heat and flame under controlled conditions, but does not by itself incorporate all factors required for fire-hazard or fire-risk assessment of materials, products, or assemblies under actual fire conditions.
The purpose of the test is to provide only the comparative measurements of surface flame spread and smoke development of materials with that of select grade red oak and reinforced cement board under specific fire exposure conditions. The test exposes a nominal 24-foot long by

CERTIFICATE OF TESTING

20-inch wide test specimen to a controlled airflow and flaming fire adjusted to spread the flame along the entire length of a red oak specimen in 5.50 minutes. During the ten-minute test duration, flame spread over the specimen surface and density of the resulting smoke are measured and recorded. Test results are calculated relative to red oak, which has an arbitrary rating of 100, and reinforced cement board, which has a rating of 0.

The test results are expressed as Flame Spread Index and Smoke Developed Index. The Flame Spread Index is defined in ASTM E 176 as a number or classification indicating a comparative measure derived from observations made during the progress of the boundary of a zone of flame under defined test conditions. The Smoke Developed Index, a term specific to ASTM E-84, is defined as a number or classification indicating a comparative measure derived from smoke obscuration data collected during the test for surface burning characteristics. There is not necessarily a relationship between the two measurements.

The method does not provide for measurement of heat transmission through the surface tested, the effect of aggravated flame spread behavior of an assembly resulting from the proximity of combustible walls and ceilings, or classifying a material as noncombustible solely by means of a Flame Spread Index.

The zero reference and other parameters critical to furnace operation are verified on the day of the test by conducting a 10-minute test using 1/4-inch reinforced cement board. Periodic tests using NOFMA certified 23/32-inch select grade red oak flooring provide data for the 100 reference.

Test Sample

The test sample, selected by the client was tested using three test panels, each measuring two feet wide by eight feet in length, were prepared by adhering the material to a 1/4-inch thick reinforced cement board using Sarimix 7 High temperature Bonding Mortar. The adhesive was applied to the smooth side of the cement board, the material placed into the adhesive, and smoothed with a brush and roller. After dead-stacking overnight, the prepared panels were transferred to storage racks and conditioned to equilibrium in an atmosphere with the temperature maintained at 71 +/- 2ºF and the relative humidity at 50 +/- 5 percent. For testing, the panels were placed end-to-end on the ledges of the tunnel furnace and tested with no auxiliary support mechanism. This method of sample preparation is described in appendix X1 of the E-84 standard, Guide to Mounting Methods, Section X1.10.1 for Heavy Textile Materials.

Test Results

The test results, calculated on the basis of observed flame propagation and the integrated area under the recorded smoke density curve, are presented below. The Flame Spread Index obtained in E-84 is rounded to the nearest number divisible by five. Smoke Developed Indices are rounded to the nearest number divisible by five unless the Index is greater than 200. In that case, the Smoke Developed Index is rounded to the nearest 50 points. Flame spread and smoke development data are presented graphically in the computer printout at the end of this report.

Clarification on Codes

Code officials frequently use the Flame Spread Index and Smoke Developed Index values obtained by the ASTM E-84 test and regulatory agencies in the acceptance of interior finish materials for various applications. The most widely accepted classification system is described in the National Fire Protection Association publication NFPA 101 Life Safety Code, where:

Standard Classification System

Class	Flame Spread Index	Smoke Development Rating
1 or A	0 - 25	0 - 450 maximum
2 or B	26 - 75	0 - 450 maximum
3 or C	76 - 200	0 - 450 maximum

Class A, B and C correspond to Type I, II, and III respectively in other codes such as SBCCI, BOCA, and ICBO. They do not prelude a material being otherwise classified by the authority of jurisdiction.

The description of the test procedure and specimen evaluated, as well as the observations and results obtained, contained herein are true and accurate within the limits of sound engineering practice. These test results were obtained from an outside source. A copy of the original document is kept on file at Applied Textiles.

CERTIFICATION I certify that the above results were obtained after testing specimen in accordance with the procedures and equipment specified by the standard stated above. These test results were obtained from an outside source.

Authorized Signature

CERTIFICATE OF TESTING

For the Account Of: Designtex
357 County Ave
Secaucus, NJ 07094
Contact: Teesha Prezeau

Client's Identification: 2mm Felt

TEST PERFORMED California Technical Bulletin 117: June 2013 – Requirements, Test Procedure and Apparatus for Testing the Smolder Resistance of Materials Used in Upholstered Furniture – Cover Fabric Test

TEST RESULTS

Specimen	Char Length (in)	Extinguished in 45 minutes? (Y/N)
1	0.5	Y
2	0.5	Y
3	0.5	Y

NOTES
Test Conditions: 70 ±5°F, 50 ±5% Relative Humidity

ACCEPTANCE CRITERIA

A material is considered to pass or fail based on the following criteria:

1. A single mock-up test specimen fails to meet the requirements of this test procedure if any of the following criteria occurs:
   a. The mock-up test specimen continues to smolder after the 45 minute test duration
   b. A vertical char length of more than 1.8 inches (45mm) develops on the cover fabric
   c. The mock-up test specimen transitions to open flaming
2. The cover fabric passes the test if three initial mock-up specimens pass the test, i.e. the cigarettes burn their full length and are no longer smoldering
3. If more than one initial specimen fails, the cover fabric fails the test
4. If any one of the three initial specimens fails, repeat the test on additional three specimens
5. If all three additional specimens pass the test, the cover fabric passes the test. If any one of the additional three specimens fails, the cover fabric fails the test

CONCLUSION Based on the above Results and Acceptance Criteria, the item tested is:

☒ Pass
☐ Fail

CERTIFICATION I certify that the above results were obtained after testing specimen in accordance with the procedures and equipment specified by the standard stated above.

Authorized Signature CR

PASS

Govmark

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e-mail: testing@govmark.com

Received: 07/22/2015	Completed: 07/22/2015	Letter: W	MB	P.O.#:	Test Report #:	3-08962-0-
Client's Identification	Style: 2mm Wool Felt. End Use: Upholstery/Multi Purpose.					

Tested For: **Teesha Prezeau**
The Designtex Group
357 County Avenue
Secaucus, NJ 07094

Key Test: NFPA 701-2015 TM#1 205

Tel: 1-(201)-917-7738 **Ext:**
Fax: 1-(201)-917-7764

PC: 0.5H DL/jd

TEST PERFORMED: NFPA 701 - Standard Methods of Fire Tests for Flame Propagation of Textiles and Films - 2015 Edition - Test Method #1 --

As cited by ACT Voluntary Performance Guidelines (August 2014)

PRODUCT CONFIGURATION: [x] Single Layer; [ ] Multi Layer

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

RESULTS:

Specimen #	Afterflame* (seconds)	Flaming Drip (seconds)	Weight Loss (percent)
1	0	0	8.1
2	0	0	8.9
3	0	0	8.1
4	0	0	8.3
5	0	0	8.0
6	0	0	9.1
7	0	0	8.3
8	0	0	8.2
9	0	0	8.0
10	0	0	7.9
Mean:		0	8.3

STATISTICAL VALUES: SD = 0.4 3 SD = 1.2 Mean + 3 SD = 9.5

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

APPROXIMATE WEIGHT OF MATERIAL (as measured by Govmark): 517 g/m²

PRECONDITIONING: [x] 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:

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

Govmark

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Client's Identification	Style: 2mm Wool Felt. End Use: Upholstery/Multi Purpose.					

Tested For: **Teesha Prezeau**
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Key Test: NFPA 701-2015 TM#1 205

Tel: 1-(201)-917-7738 **Ext:**
Fax: 1-(201)-917-7764

REMARKS:

[x] Flames did not project above the top of the specimen.
[ ] Flames projected above the top of the specimen; Specimen #'s _____
[ ] Other: _____

FAILURE CRITERIA:

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

CONCLUSION: Based on the Results on page 1 and the above 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.

** See "Discussion" on Page 3.

CERTIFICATION: I certify that the above results were obtained after testing specimens in accordance with the procedures and equipment specified above.

AUTHORIZED SIGNATURE
GOVMARK
/ec 169

Douglas W. Lipp

JUL 2 4 2015

Govmark

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** DISCUSSION:

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, in effect, Govmark is of the opinion that this "individual specimen criteria" has no meaning, since it cannot possibly result in a nonconformance.

The Govmark Organization, Inc.

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FAX: (516) 293-8956

Client Name : The Designtex Group
Addendum to Test Report # : 3-08962-0
Test : : NFPA 701

Specimen #	Weight Before Test (g)	Weight After Test (g)	Percent Weight Loss
1	32.20	29.60	8.1
2	36.00	32.80	8.9
3	34.60	31.80	8.1
4	33.60	30.80	8.3
5	34.80	32.00	8.0
6	35.00	31.80	9.1
7	36.20	33.20	8.3
8	36.40	33.40	8.2
9	37.40	34.40	8.0
10	37.80	34.80	7.9

Mean Percent Weight Loss : 8.3
Standard Deviation : 0.4
3 x Standard Deviation : 1.2
Mean + 3 x Standard Deviation : 9.5