SGS GOVMARK

96-D Allen Boulevard
Farmingdale, New York 11735-5626 USA
Tel. +1 (631) 293-8944 Fax +1 (631) 293-8956
email: govmark.accounting@sgs.com

Received: 11/16/2018	Completed: 11/27/2018	Letter: W	JR	P.O.#:	Test Report #:	3-29655-0-
Client's Identification	Style: Twist/Twist Melange. Content: 100% Trevira CS. Weight: 330 g/lm. Color: 60076 Light Grey. Product End Use: Screens.					

Tested For: **Bente Ellingsoe, Quality Department**
Gabriel A/S
Hjulmagervej 55
DK-9000 Aalborg, Denmark

Key Test: ASTM E84/ACT 1275

Tel: 011-45-9630-3100 **Ext:**
Fax: 011-45-9811-6125

Test Category: Tunnel Test Specifier: ACT LE 2015; V 4/18 PC: ME dl/SM BB/mg

TEST PERFORMED: ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials [LE 2018a; V 9/18] --

As cited by the Association of Contract Textiles (ACT) Voluntary Performance Guidelines (January 2015)

APPROXIMATE THICKNESS OF SPECIMEN (as measured by SGS Govmark): 0.03"

SPECIMEN WEIGHT (to include substrate when applicable):

Prior to Conditioning: 2.4 lbs.

Stabilized Weight (taken twice within 24 hours): 2.4 lbs.

PRODUCT CATEGORY:

[x] Textile Type Product

[ ] Vinyl Type Product

[ ] Other than Textile Type or Vinyl Type Product: _____

BRIEF DESCRIPTION OF TEST: This test method is used to determine the relative burning behavior of a material under defined test conditions. The test is performed in a 25 ft. long tunnel/duct-like apparatus and is often referred to as the "tunnel test". The test contemplates a calibration where Red Oak burns to the 24 ft. mark in 5.5 minutes ± 15 seconds. During the actual test, a 24 ft. long x 23" wide specimen rests horizontally in a ceiling configuration inside the test chamber facing downward and toward two upward oriented burners. A furnace lid that rests in a water trough seals the chamber tight. A cement board placed on the backside of each specimen assembly protects the furnace lid during the test. The near face of the specimen is subjected to a 4.5 ft. flame insult of approximately 88 kW for ten minutes. The time and distance of the spread of flame along the length of the specimen and the smoke developed as read by the photometric system are all recorded. The Flame Spread and Smoke Developed are reported as an Index.

-- See Page 3 for "Results" --

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SPECIMEN MOUNTING:

[ ] Self-supporting: The test specimen was rigid enough to be self-supporting when placed into test position. No additional support was required.

[ ] Adhered to IRC: The test specimen was bonded to 1/4" Inorganic Reinforced Cement (IRC) boards.

[ ] Adhered to Gypsum: The test specimen was adhered to 5/8" thick Type X gypsum board.

[x] Unadhered: The specimen was not adhered to any substrate. Instead, it was laid over a 2" hexagonal wire mesh screen and 1/4" rods.

[ ] Other: _____

SPECIMEN LENGTH: The 24 ft. length was comprised of:

[ ] Continuous unbroken 24 ft. length
[x] Sections: [x] Three 8 ft. sections butted end to end
[ ] Three 8 ft. sections positively joined
[ ] Other: _____

ADHESIVE (applied by SGS Govmark): [x] No
[ ] Yes (specify):_____

OBSERVATIONS: [ ] No unusual observations
[ ] Delamination
[ ] Sagging
[ ] Shrinkage
[ ] Fallout (specimen displacement from ceiling mount)
[x] Other: Melting and minor dripping

REMARKS: [x] None
[ ] Other: _____

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RESULTS: Flame Spread Index: 5
Smoke Developed: 200

ROUNDING: Flame Spread Index value has been rounded to the nearest multiple of 5.
Smoke Developed value has been rounded to:

Raw Data	Rounded
Less than 200	Nearest multiple of 5
200 or more	Nearest multiple of 50

ACCEPTANCE CRITERIA (as cited by ACT):

	Flame Spread Index	Smoke Developed
Class A	0 -25	450 or less

NOTE: Class A is also known as Class 1 and may be so specified in some Codes.

CONCLUSION: Based on the reported Results and cited Acceptance Criteria, the item tested:

[x] Complies; [ ] Does not comply

DATA SUMMARY: Time to Ignition (minutes:seconds): 00:10
Maximum Flame Spread "Distance" (feet): 1.3
Maximum Flame Spread "Time" (seconds): 20

CODE CLASSIFICATION: Based on the reported Results and cited Code Classifcation System, the item tested is assigned a:

[x] Class I or A rating
[ ] Class II or B rating
[ ] Class III or C rating
[ ] Fails to achieve a minimum classification thereby rendering the product unsuitable in terms of code requirement
[ ] Based on product performance*, ASTM E84 is not a suitable test method for the material.

* Severe melt, drip, delamination or other behavior that destroys the continuity of the flame front such that a valid flame spread is unobtainable (See "Remarks" on Page 2 of 4.)

-- See Page 4 for "Code Classification System" --

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CODE CLASSIFICATION SYSTEM:

	Flame Spread Index	Smoke Developed
Class I or A:	0 - 25	450 or less
Class II or B:	26 - 75	450 or less
Class III or C:	76 - 200	450 or less

LIMITATIONS OF THE ASTM E84 CLASSIFICATION SCHEME: Most building codes will accept the ASTM E84 classifications when the interior finish product is used in a sprinklered area. Certain local authorities such as NYC have more stringent requirements, i.e. Smoke Developed ranges from a maximum 25 to 100.

If the interior finish product is a textile or vinyl wall covering used in a non-sprinklered area, the NFPA 265 room corner fire test applies.

Certain products which give off excessive heat such as but not limited to cellular plastics, cellular foam (either with or without coverings as applicable), polypropylene, and high density polyethylene should be tested by NFPA 286 - Standard Methods of Fire Tests for Evaluating Contribution of Wall and Ceiling Interior Finish to Room Fire Growth. In Govmark's opinion, the codes require NFPA 286 for such products, even in sprinklered areas.

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

Phyllis Pettit

AUTHORIZED SIGNATURE
SGS GOVMARK
/gb /pm

JAN 3 2019

Test Engineer: Jimmy Rosinsky

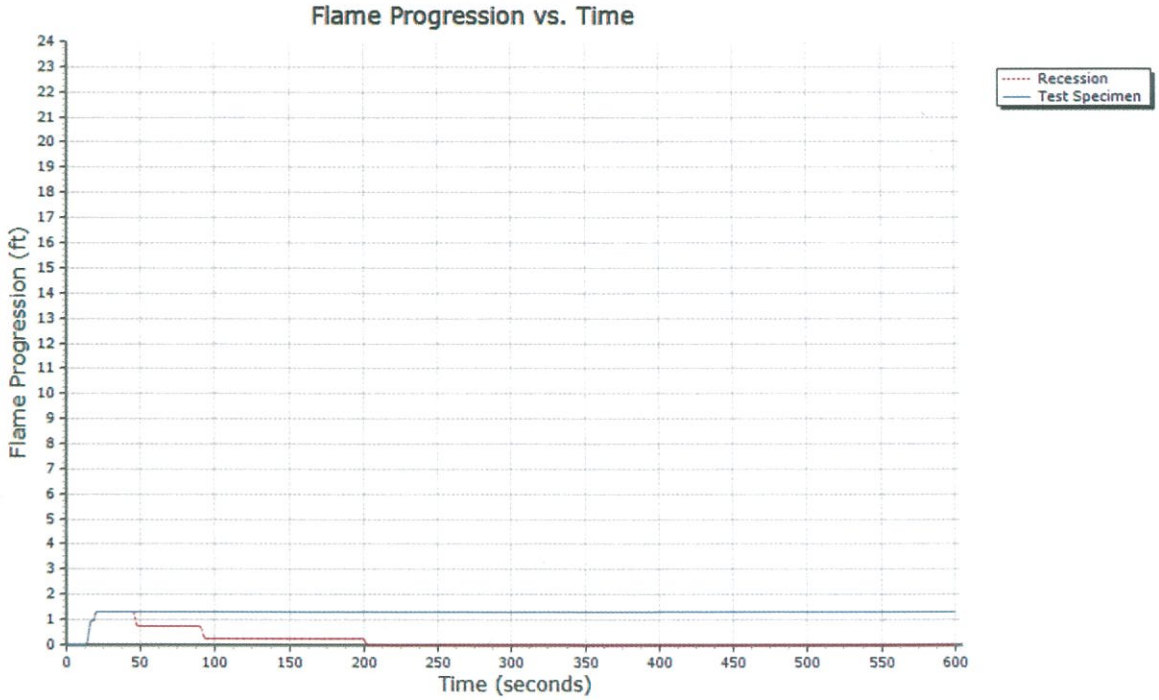
Enclosure: Graphs

SGS GOVMARK

Program: ASTM E84 (Version 1.61)

Test Method	: ASTM E84
Test Report #	: 3-29655-0-W
Date	: 11/27/2018
Client	: Gabriel A/S
Operator	: Jimmy Rosinsky
Details of Preparation	: Test specimen was unadhered: The specimen was not adhered to any substrate. Instead, it was laid over a 2" hexagonal wire mesh screen and 1/4" rods. The 24 ft. lengh was comprised of three 8 ft. sections butted end to end.
Observations	: Test specimen melted away and dripped on to oven floor.

Area Under Flame Curve (ft min)	: 12.77
Raw Flame Spread Index (ft min)	: 6.58
Rounded Flame Spread Index (ft min)	: **5**
Ignition Time	: **00:10 mm:ss**
Area Under Smoke Curve (%A min)	: 192.27
Raw Smoke-Developed Index	: 204.69
Rounded Smoke-Developed Index	: **200**
Total Gas Flow(L)	: 1419.7
Total Gas Flow(ft^3)	: 50.1
Maximum Flame Front Achieved(ft)	: 1.3 (@20s)



SGS GOVMARK

Program: ASTM E84 (Version 1.61)

Test Method : ASTM E84
Test Report # : 3-29655-0-W