

Received:07/07/2006 Completed:07/18/2006 Letter: Z1 rb P.O.#: 000266014 REV 0 Test Report #: 2-63180-1-

Client's Identification Busart OV5040C .4 Mils Vinyl Overlam, 1 Mil Solvent Acrylic Adhesive. & STSWBF2 .8 Mils Vinyl 1 Mil Solvent Acrylic Adhesive

Tested For: **Joann Dupre** Key Test: ASTM E 162 495
Flexcon Co, Inc
1 Flexcon Industrial Park, Office #4
Spencer, MA 01562-2642
Tel: 1-(508)-885-8247 Ext:
Fax: 1-(508)-885-8399

Category: Radiant Panel Specifier: Transit Guidelines & Regs. PC: 24H+ME

APPROXIMATE THICKNESS OF MATERIAL (as measured by Govmark): 0.012"

TEST PERFORMED: ASTM E 162 - Standard Test Method for Surface Flammability of Materials Using a Radiant Heat Energy Source

SPECIMEN PREPARATION:

- [] No backing required, as specimens exceeded 0.75" in thickness.
- [x] The specimens were backed by a 0.5" Etera board (a cement asbestos substitute).
- [] The back and sides of each specimen were wrapped with 0.002" thick aluminum foil.
- [] The face of each specimen was covered with 1.0" hexagonal wire mesh screen.
- [x] Specimens were mounted to steel plate 0.06" thick (with self adhesive backing)

BRIEF DESCRIPTION OF TEST: The test specimen faces a radiant heat source. At the beginning of the test period an igniting flame impinges at the top of the specimen. Visual observation is made of the downward progression of the flame front. The heat given off by the burning specimen is automatically recorded. The combination of the two factors, flame front progression and heat, results in a Flame Spread Index.

RESULTS:	Flame Progression (mm:ss)					Net Stack Rise°C	Q	FS	Flame Spread Index	Flaming Dripping, or Flaming Running (yes/no)
	3.0"	6.0"	9.0"	12.0"	15.0"					
Specimen	3.0"	6.0"	9.0"	12.0"	15.0"	Rise°C	Q	FS	Index	(yes/no)
1	1:18	1:53	FN	FN	FN	0.5	0.1	3.1	0.3	No
2	1:07	1:38	2:33	FN	FN	17.6	4.2	4.5	18.9	No
3	1:10	1:40	FN	FN	FN	10.3	2.5	3.4	8.5	No
4	1:12	1:54	3:00	FN	FN	22.0	5.3	4.0	21.2	No
									Avg: 12.2	

ABBREVIATIONS USED:

- F = Flashed beyond benchmark.
- FN = Flame front did not reach this benchmark.

CALCULATION FACTORS:

Etera board correction factor: .29
Beta: 23.83

FLUX: 3.3-2.07-0.96 (Flux Transducer # 6024)

Remark: Busart OV5040C 0.4 Mils was adhered over 0.8 Mil STSWBF2 Vinyl.

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Tested For: Joann Dupre **Key Test: ASTM E 162** 495
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Specimen #	Non Sustained Flame Front Off Gas Ignition (yes/no)	Sustained Flame Front Ignition at (mm:ss)	All Flaming Out (mm:ss)	Test End (mm:ss)	Drips Flame on Test Floor (yes/no)
1	Yes	00:48	2:10	3:10	No
2	Yes	00:48	3:15	4:15	No
3	Yes	00:57	2:00	3:00	No
4	Yes	00:53	3:20	4:20	No

ACCEPTANCE CRITERIA: For panels*, seats, mattress frames --

1. Flame Spread Index shall not exceed 35.
2. Flaming dripping, or flaming running is not permitted.

(* Panels include: Walls, ceilings, partition tables & shelves, HVAC ducting, windows, and light diffusers)

SPECIFIERS:

1. Federal Railroad Administration Test Procedures & Performance Criteria, Federal Register Notice dated 6/25/02
2. UMTA Recommended Fire Safety Practices for Transit Bus & Van Materials Selection Docket #90-A published 10/20/93
3. Amtrac Specification #352 Section 3.5 dated 1/29/90
4. NFPA 130 Section 4.2.4 Interior Fire Propagation Resistance

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

Complies Does not comply

CERTIFICATION: I certify that the above results were obtained after testing specimens in accordance with the procedures and equipment specified by ASTM E 162.

 AUTHORIZED SIGNATURE
 THE GOVMARK ORGANIZATION, INC. /rb

Received:07/07/2006 Completed:07/17/2006 Letter: Z rb P.O.#: 000266014 REV 0 Test Report #: 2-63180-0-

Client's Identification Busart OV5040C .4 Mils Vinyl Overlam, 1 Mil Solvent Acrylic Adhesive & STSWBF 2 .8 Mils Vinyl 1 Mil Solvent Acrylic Adhesive.

Tested For: Joann Dupre **Key Test: ASTM E 662** 465
 Flexcon Co, Inc
 1 Flexcon Industrial Park, Office #4 **Tel: 1-(508)-885-8247** **Ext:**
 Spencer, MA 01562-2642 **Fax: 1-(508)-885-8399**

Category: Smoke Density Specifier: Transit Guidelines/Regs. PC: 24H+ME

APPROXIMATE THICKNESS OF MATERIAL (as measured by Govmark): 0.012"

TEST PERFORMED: ASTM E 662 - Standard Test Method For Specific Optical Density of Smoke Generated by Solid Materials (NFPA Designation No. 258), as modified by the transportation industry (see "Acceptance Criteria")

RESULTS:	Flaming Dripping, or Flaming Running** (yes/no)	Non Flaming Mode	Flaming Dripping, or Flaming Running ** (yes/no)
Specific Optical Density at:	Flaming Mode	Non Flaming Mode	Flaming Mode
-----	-----	-----	-----
90 Seconds:	Specimen #		
	1	69	No
	2	67	No
	3	69	No
	Avg:	68	Avg: 34
4 Minutes:	1	71	No
	2	71	No
	3	78	No
	Avg:	73	Avg: 73

NOTE: An asterisk (*) next to a result indicates that the value is lower than the earlier value as a result of a correction for particle deposits on the glass which is part of the optical system.

REMARKS: Busart OV5040C 0.4 Mil was adhered over 0.8 Mil STSWBF2 Vinyl. Specimens were mounted to a steel plate 0.06" thick (with self adhesive)

ACCEPTANCE CRITERIA: For panels***, seat frames & shrouds, mattress frames --

	Specific Density at 90 seconds	Specific Density at 4 minutes
Flaming Mode:	100 maximum	200 maximum
Non Flaming Mode:	100 maximum	200 maximum

Flaming dripping, or flaming running is not permitted.

(*** Panels include: Walls, ceilings, partition tables & shelves, HVAC ducting, windows, and light diffusers)

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Tested For: Joann Dupre				Key Test: ASTM E 662	465
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SPECIFIERS:

1. Federal Railroad Administration Test Procedures & Performance Criteria
Federal Register Notice dated 6/26/02
2. UMTA Recommended Fire Safety Practices for Transit Bus & Van Materials Selection
Docket #90-A published 10/20/93
3. Amtrac Specification #352 Section 3.5 dated 1/29/90
4. NFPA 130 Section 4.2.4 Interior Fire Propagation Resistance

(** Flaming dripping or flaming running are not normally reported during this test. However, the acceptance criteria established by the transportation industry require this additional reporting category.)

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

Complies; Does not comply

CERTIFICATION: I certify that the above results were obtained after testing specimens in accordance with the procedures and equipment specified by ASTM E 662 (NFPA Designation No. 258).

 AUTHORIZED SIGNATURE
 THE GOVMARK ORGANIZATION, INC. /rb