



SGS U.S. Testing Company Inc.

1341 North 108<sup>th</sup> East Avenue • Tulsa, OK 74116 • Tel: 918-437-8333 • Fax: 918-437-8487

US-D-OPS-04-02-T

CLIENT: Derby Inc.  
24350 State Road 23 South  
South Bend, IN 46614

Attn: Tim Shelby

Test Report No: 174138-2

Date: January 31, 2003

SUBJECT: Flammability Testing of Mattresses for Use in Public Buildings.

REFERENCE: Letter

SAMPLE ID: Sample identified as "Model 400C-1100C mattress Constructed of Densified Polyester Batting With Integral Pillow" was received from the client on 1/22/03. The sample was received in good condition.

TEST REQUESTED: The sample was tested in accordance with California Technical Bulletin 121. No revisions to this report will be allowed after 90 days of the report date.

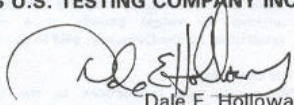
TEST DATE: 1/24/03

RESULTS: Results can be found on the following pages.

CONCLUSION: The mattress tested does comply with the requirements of California Technical Bulletin 121.

SIGNED FOR AND ON BEHALF OF  
SGS U.S. TESTING COMPANY INC.

  
bk Jeff Simmons  
Dept. Manager/Product Evaluation

  
Dale E. Holloway  
Tulsa Branch Director

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US-D-OPS-04-03-T

Report No.: 174138-2

Derby Inc.

**PROCEDURE:**

The sample and ignition source was conditioned before testing for 48 hours at 70°F  $\pm$  5°F and a relative humidity less than 55%.

The mattress was placed on a metal test frame, which was placed on an electronic scale inside a test room having dimensions of 10' X 12' with an 8' high ceiling. The mattress and frame were located on the wall opposite the doorway. The test was performed without bedding.

The ignition source was ten (10) double sheets of loosely wadded newspaper (dimensions, 23 x 28 in. and a weight of 18.5  $\pm$  .5 grams) placed in a metal container (dimensions: 10 in. x 12-1/2 in. x 9 in.). The ignition source was placed at the geometric center underneath the mattress. The mattress was adjusted so that the bottom surface of the mattress was 3  $\pm$  1/4 in. above the top of the ignition source.

After ignition, we monitored and recorded certain properties of the test procedure. These properties are weight change, carbon monoxide, and specified locations for temperature.

Temperature was measured directly over the specimen at 1 in. below the ceiling.

Photos and video were taken of the specimen during the procedure. Sampling was monitored throughout the test at a rate of 5 seconds.



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**RESULTS:**

**SAMPLE:** Model 400C-1100C mattress Constructed of Densified Polyester Batting With Integral Pillow

**TEST DATE:** 1/24/03

**DATA:**

Measurement Type <sup>A</sup>	Initial Value	Maximum Value	Time Occurred	Maximum Change	Maximum Allowable Change	Pass / Fail
1.	67.0	135.0	0:01:35	68.0	500	Pass
2.	17.2	16.7	0:27:45	0.5	10.0	Pass
3.	3.8	408.4	0:17:30	428.1	1000	Pass

Total Test Time, (hr:min:sec): 0:27:45 Sample Self-Extinguished

<sup>A</sup> - References number values below (1 - 3)

**Descriptions Below-**

1. Ceiling Temperature, °F
2. Weight, lbf.
3. Carbon Monoxide Concentration, ppm



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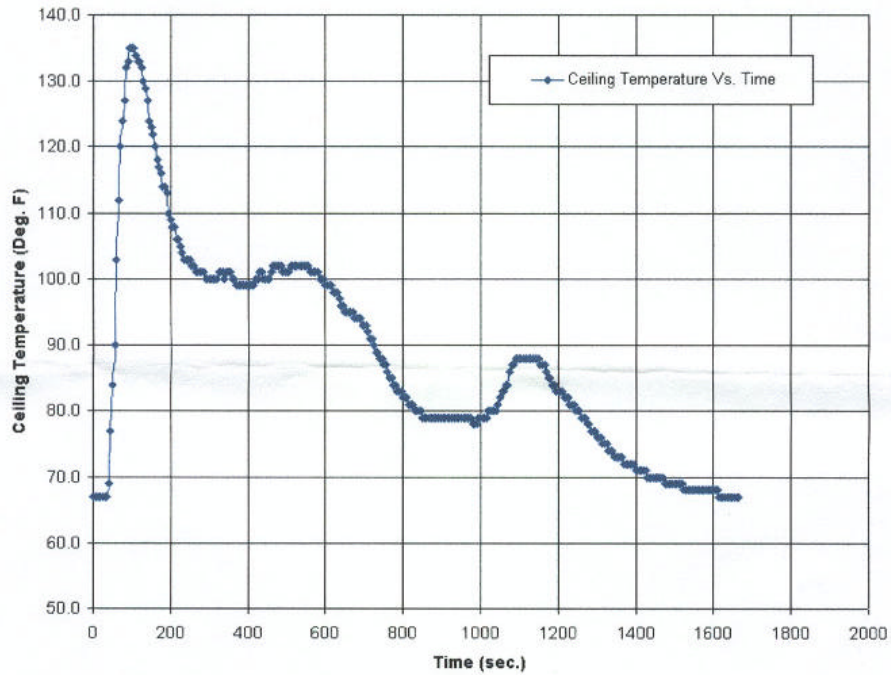
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Derby Inc.

PLOTS:

Ceiling Temperature Vs. Time  
Client: Derby Inc. Sample ID: Model 400C-1100C Densified Polyester Batting with Integral Pillow  
Procedure: CAL TB 121 Date: 1/31/03 12:45:17 PM







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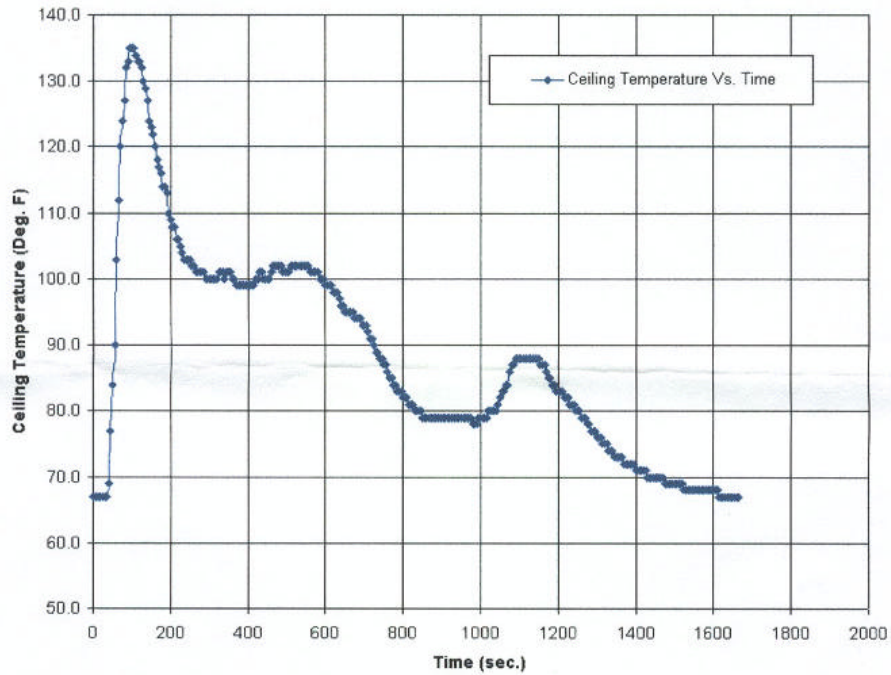
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Derby Inc.

PLOTS:

Ceiling Temperature Vs. Time  
Client: Derby Inc. Sample ID: Model 400C-1100C Densified Polyester Batting with Integral Pillow  
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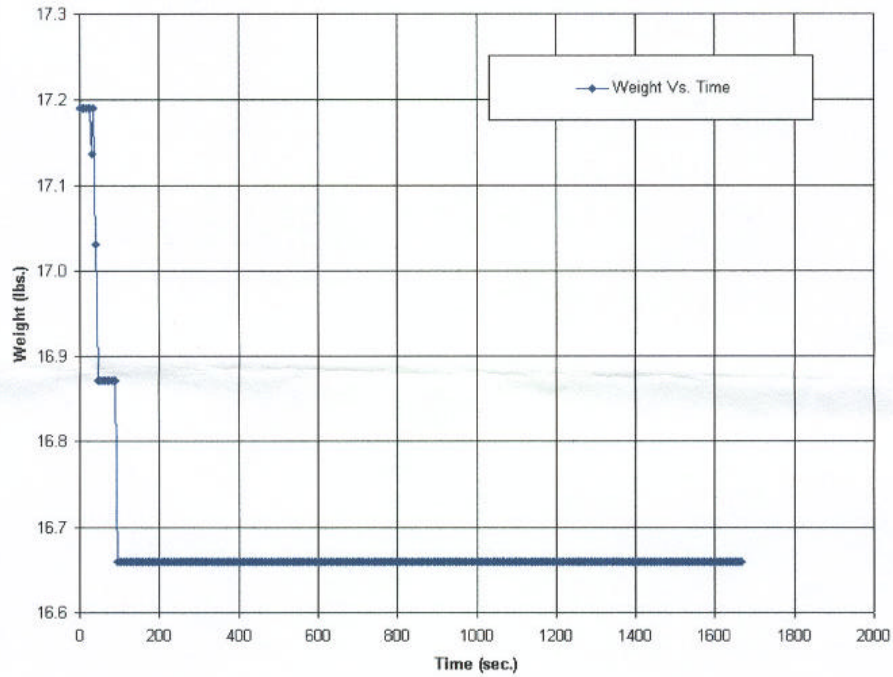
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Derby Inc.

Weight Vs. Time  
Client: Derby Inc. Sample ID: Model 400C-1100C Densified Polyester Batting with Integral Pillow  
Procedure: CAL TB 121 Date: 1/31/03 12:45:17 PM





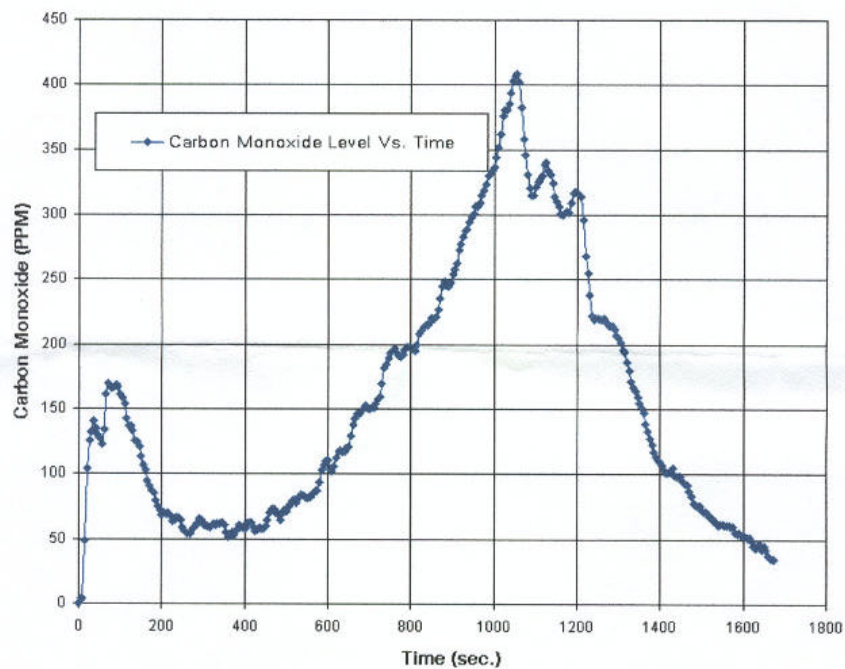
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Derby Inc.

Carbon Monoxide Level Vs. Time  
Client: Derby Inc. Sample ID: Model 400C-1100C Densified Polyester Batting with Integral Pillow  
Procedure: CAL TB 121 Date: 1/31/03 12:45:17 PM





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PHOTOS:

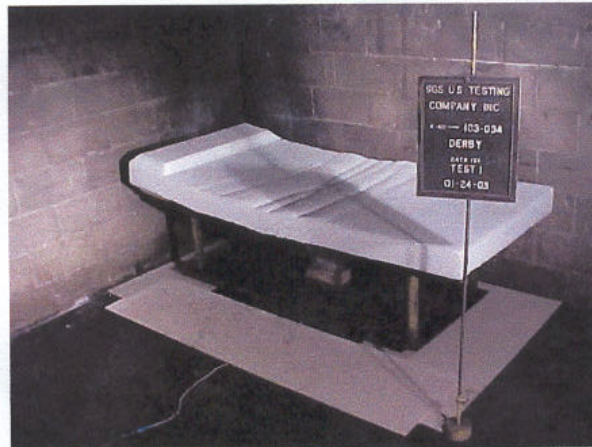


PHOTO 1. Mattress before test.

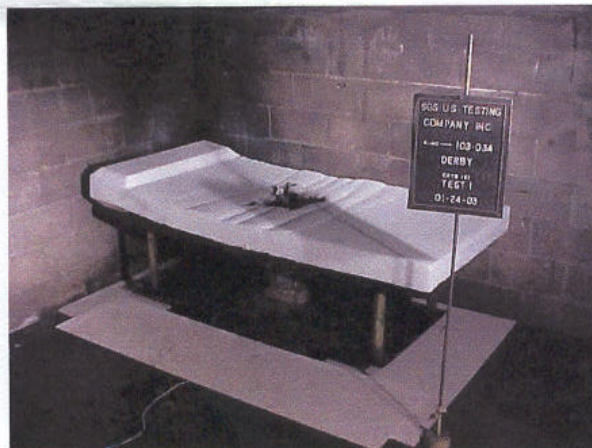


PHOTO 2. Mattress after all ignition had ceased.

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END OF REPORT