

PROJECT NUMBER: 30160 05-64748-1

PAGE: 1 of 6

DATE: January 25, 2005

**STORK TWIN CITY TESTING CORPORATION  
662 Cromwell Avenue  
St. Paul, Minnesota 55114**

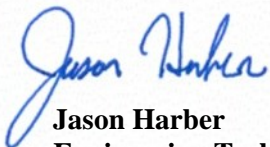
**OPEN FLAME EVALUATION CONDUCTED ON  
“MATTRESS #1”**

**IN ACCORDANCE WITH  
CALIFORNIA TECHNICAL BULLETIN 129  
“FLAMMABILITY TEST PROCEDURE FOR MATTRESSES  
FOR USE IN PUBLIC BUILDINGS”**

**Prepared for:  
DERBY INDUSTRIES  
Attn: Mr. Tim Shelby  
24350 State Road 23 South  
South Bend, IN 46614**

**Client Purchase Order Number: Verbal**

**Prepared by:**



**Jason Harber  
Engineering Technician  
Bedding Evaluation Services  
Phone: (651) 659 - 7350**

**Reviewed by:**



**Brent L. Larson  
Project Engineer  
Bedding Evaluation Services  
Phone: (651) 659 - 7275**

**The test results contained in this report pertain only to the samples submitted for testing and not necessarily to all similar products.**

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OPEN FLAME EVALUATION – CA T.B. 129

**INTRODUCTION:**

This report presents the results of a full scale open flame test conducted on the following:

**TB 129**

PROJECT #:	30160 05-64748
TEST SEQUENCE #:	1
TEST REQUESTOR: name: address:	Tim Shelby 24350 State Road 23 South South Bend, IN 46614
TEST CONFIGURATION:	C - Test Room - 12' x 10' x 8'
PRODUCT MANUFACTURER or SUPPLIER:	Derby Industries
PRODUCT ID MARKS & DESCRIPTION:	Mattress #1 (with built-in pillow)
MATTRESS: width x length x thickness (in):	25.00 x 74.00 x 4.00
FOUNDATION: width x length x thickness (in):	-- x -- x --
CONDITIONING ROOM: temp (°F) / R.H. (%):	72.0 / 50
BURN ROOM: temp (°F) / R.H. (%):	-- / --
TOTAL INITIAL MASS (kg):	6.50
TEST DATE:	01-24-2005
COMMENTS:	

Test Results	Data	Criteria	Pass/Fail
Peak rate of heat release (kW):	20.3	100 kW	Pass
Time @ peak release (mm:ss):	01 : 11	--	-
Total heat released @ 10 min (MJ):	4.5	25.0 MJ	Pass
Total mass loss @ 10 min (kg):	0.0	1.4 kg (3.0 lbs)	Pass
Peak rate of smoke release (m <sup>2</sup> /s):	0.02	--	-
Time @ peak smoke (mm:ss):	02 : 55	--	-
Total smoke released @ 10 min (m <sup>2</sup> ):	7.7	--	-

**OBSERVATIONS:**

<b>Time (mm : ss)</b>	<b>Observation</b>
00 : 00	Burner ON
00 : 11	Flaming Droplets
00 : 24	Flaming Droplets
00 : 47	Flaming Droplets
01 : 27	Flaming Droplets
02 : 08	Flaming Droplets
03 : 00	Burner OFF
03 : 34	Flaming Droplets
06 : 42	All signs of combustion have ceased

**TEST PROCEDURE:**

This test was conducted in accordance with California Technical Bulletin 129, a brief summary is detailed below:

The mattress was allowed to condition for at least 24 hours in conditions compliant with California technical bulletin 129 (temperature – 73°F ± 5°F / relative humidity – 50% ± 5%). The instrumentation was calibrated and zeroed prior to the evaluation. After the specimen was placed on the bed frame inside the test room the burner alignment procedure was performed. Data logging and video were obtained for 2 minutes prior to burner ignition. The burner application time was 180 seconds. Upon completion of the flame application time, the burner unit was removed from the test room.

The test proceeded until either all combustion had ceased, 60 minutes had passed or the development of a fire of such size as to require suppression for the safety of the facility.

**REMARKS:**

Due to the nature of the test the specimen will be discarded upon completion of the procedure, unless otherwise requested.

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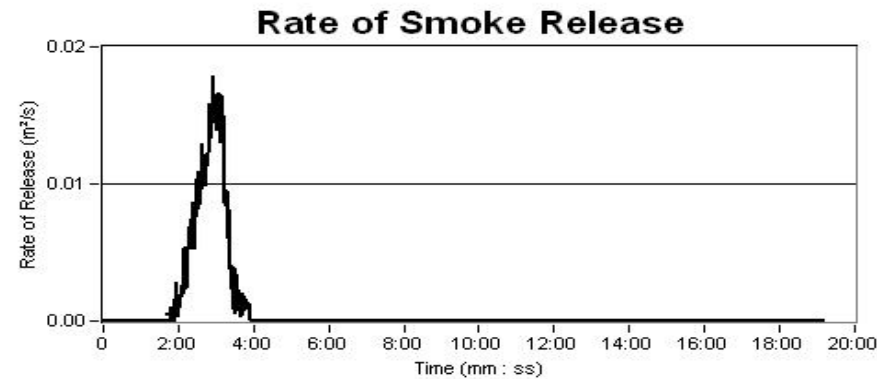
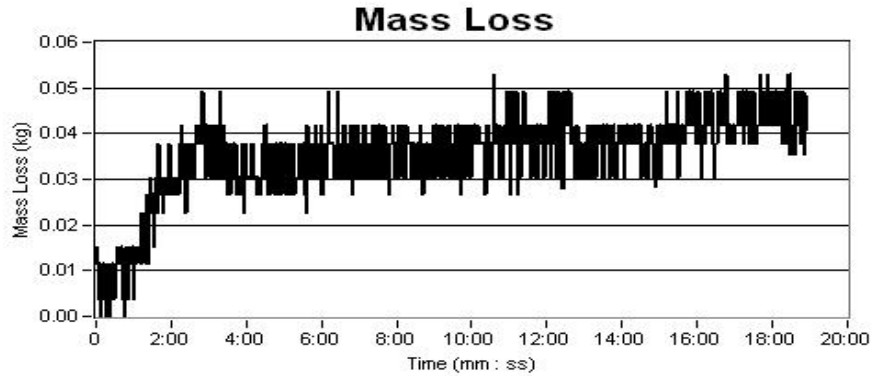
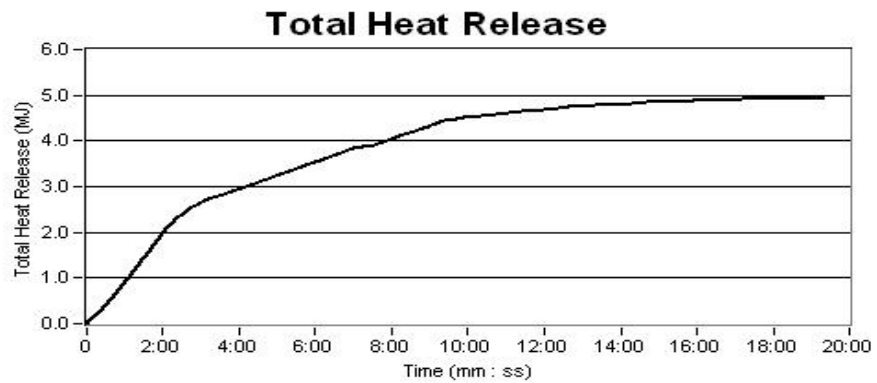
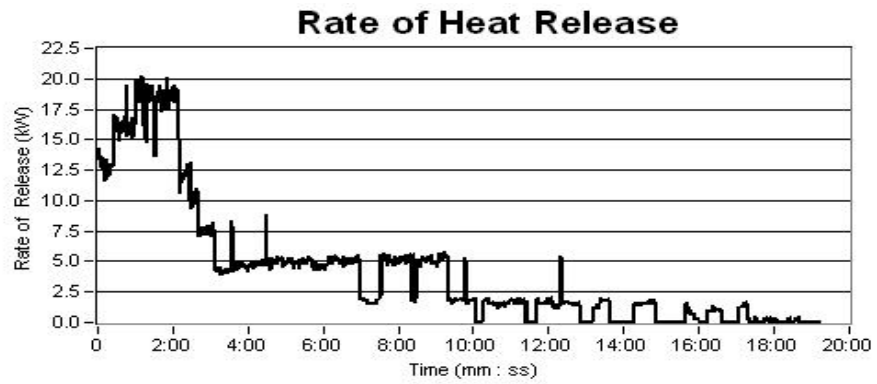
**SAMPLE DESCRIPTION:**

<b>Product:</b> 4½ x 25 x 75P – Innotherm Fiber	<b>Sample ID or Model#:</b> Mattress #1	
<b>Fabric Type (include % composition and weight):</b> Dartex Derby Blue	<b>Fabric Color:</b> Blue	
<b>Sample Weight:</b> 13 lbs	<b>Weight of Combustibles:</b>	
<b>Weight of Frame:</b>	<b>Interliner/Blocking Layer Description (if present):</b>	
<b>Fill Description (with order of Layering):</b>	<b>Mattress Dimensions:</b> 25" x 75" x 4"	<b>Foundation Dimensions:</b> NONE

**Does the Sample contain any of the following: (Check all that apply)**

YES     NO  
 N     P     S     F     C1     Br

**GRAPHS:**



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**PHOTOS:**



**BEFORE TEST**



**AFTER TEST**

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