

PROJECT NUMBER: 30160 05-70786-1

PAGE: 1 of 5

DATE: September 30, 2005

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

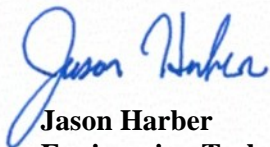
**OPEN FLAME EVALUATION CONDUCTED ON A
“DERBY SECURE CARE - SC 453580P (GRAY)” MATTRESS**

**IN ACCORDANCE WITH
CALIFORNIA TECHNICAL BULLETIN 603
“REQUIREMENTS AND TEST PROCEDURE FOR
RESISTANCE OF A MATTRESS/BOX SPRING
SET TO A LARGE OPEN-FLAME”**

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

Client Purchase Order Number: 7166

Prepared by:



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Product Evaluation Services
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Reviewed by:



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Project Engineer
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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.

OPEN FLAME EVALUATION – CA T.B. 603

INTRODUCTION:

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

PROJECT #:	30160 05-70786		
TEST SEQUENCE #:	1		
TEST REQUESTOR: name: address:	24350 State Road 23 South South Bend, IN 46614		
TEST CONFIGURATION:	Test Room - 12'x 10'x 8'		
PRODUCT MANUFACTURER or SUPPLIER:	Derby Industries		
PRODUCT ID MARKS & DESCRIPTION:	Derby Secure Care Mattress - SC453580P		
MATTRESS: width x length x thickness (in):	35.25 x 80.00 x 4.00		
FOUNDATION: width x length x thickness (in):	-- x -- x --		
CONDITIONING ROOM: temp (°F) / R.H. (%):	72.0 / 31		
BURN ROOM: temp (°F) / R.H. (%):	-- / --		
TOTAL INITIAL MASS (kg):	9.88		
TEST DATE:	09-29-2005		
COMMENTS:			
Test Results	Data	Criteria	Pass/Fail
Peak rate of heat release (kW):	37.8	200 kW	Pass
Time @ peak release (mm:ss):	18 : 17	--	-
Total heat released @ 10 min (MJ):	8.6	25.0 MJ	Pass

OBSERVATIONS:

Time (mm : ss)	Observation
00 : 00	Burner ON
00 : 16	Flaming Droplets
00 : 50	Side Burner OFF
01 : 10	Top burner OFF
10 : 40	Flames reached left corner
11 : 35	Flames reached right corner

TEST PROCEDURE:

This test was conducted in accordance with California Technical Bulletin 603, a brief summary is detailed below:

The mattress / mattress set was allowed to condition for at least 24 hours in conditions compliant with California technical bulletin 603 (temperature – greater than 54°F / relative humidity – less than 70%). 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 70 seconds for the top burner and 50 seconds for the side burner. Upon completion of the flame application times, the top burner was carefully lifted off of the mattress surface and the unit removed from the test room.

The test proceeded until either all combustion had ceased, 30 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.

SAMPLE DESCRIPTION:

Product: Derby Secure Care Mattress	Sample ID or Model#: SC 453580P	
Fabric Type (include % composition and weight):	Fabric Color: Gray	
Sample Weight:	Weight of Combustibles:	
Weight of Frame:	Interliner/Blocking Layer Description (if present):	
Fill Description (with order of Layering): Densified Poly Fiber	Mattress Dimensions: 4½” x 35 x 80	Foundation Dimensions:

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

YES NO
 N P S F C1 Br

GRAPHS:

