TEST REPORT

REPORT NUMBER: 3147158SAT-001 Rev. 1
Report Date: April 30, 2008
REVISED DATE: May 5, 2008

EVALUATION CENTER
Intertek Testing Services NA Inc.
16015 Shady Falls Rd.
Elmendorf, TX 78112

RENDERED TO

Flame Seal Products, Inc.
4025 Willowbend Boulevard, #310
Houston, TX 77025

PRODUCT EVALUATED: FX100-TB
Commercially Sold As "Flame Seal-TB"
EVALUATION PROPERTY: Flame Spread

Report of Testing FX100-TB (commercially sold as "Flame Seal-TB") for compliance with the applicable requirements of the following criteria: *UL 1715 Room Fire Test*

1 Table of Contents

2 Introduction

Intertek Testing Services NA (Intertek) has conducted testing for Flame Seal Products, Inc., on "FX-100-TB," (commercially sold as "Flame Seal-TB") to evaluate flame spread properties under real scale room fire conditions. Testing was conducted in accordance with UL 1715 Room Fire Test. This evaluation was performed on April 29, 2008.

3 Test Samples

3.1. SAMPLE SELECTION

The FX100-TB test specimen is a traceable sample selected from the manufacturer's facility. Intertek selected the specimen and has verified the composition, manufacturing techniques and quality assurance procedures.

3.2. SAMPLE AND ASSEMBLY DESCRIPTION

On April 14, 6 inches of a 1.9 pcf UL Listed closed cell foam system supplied by Bay Systems, was applied to the UL 1715 test room on the back wall, left wall, and ceiling. The substrate surface was gypsum wallboard with steel studs behind for support.

The foam system was covered with the FX100-TB into the UL 1715 test room on April 21 and 22, 2008. Application was performed by Flame Seal staff using a power roller. Wet thickness was 25 mils. Some dripping of the coating was apparent as shown in the pre-test photos.

4 Testing and Evaluation Methods

INTRODUCTION

This report presents the results of an investigation of a room corner fire test conducted according to UL 1715 Room Fire Test Standard of Interior Finish Material. This document contains a description of the material evaluated, procedures used, and the test results. Note that the results listed apply only to the specimens tested, in the manner tested, and not to the entire production of this or similar materials, nor to the performance of this material when used in combination with other materials.

PROCEDURE

The standard test facility consists of an 8 ft. wide by 12 ft. long by 8 ft. high room with walls and ceiling and a doorway 2-1/2 ft. wide and 7 ft. high centered in one of the 8 ft. walls. All vertical or horizontal joint details must be representative of those intended for use in field conditions. The remainder of the interior of the room is constructed of 5/8 in. gypsum wallboard screwed to 2 x 4 metal studs (1 1/2 in. x 3 5/8 in.). The test structure is located inside of a building free of excessive drafts.

The fuel source is a wood crib constructed of l.5 in. x l.5 in. sticks of Spruce Pine Fir cut to 15-in. lengths. The crib must have a dry wood weight of 30 lbs. and be 15 in. square in plan. One 8d nail is driven at each intersection of two sticks. The crib is assembled in tiers of five sticks each with each tier oriented 90 degrees to the sticks in the adjacent tiers.

The crib is placed on four brick pieces, one under each corner of the crib, to provide not less than a 3-in. space between the floor and the lower surface of the crib. Ignition of the crib is accomplished by evenly distributing 1 lb. of shredded and fluffed wood excelsior beneath the crib over a 21 in. x 21 in. area and soaking with 4 oz. of 95% ethyl alcohol.

Four Type K, Chromel-Alumel thermocouples as per UL 1715 were utilized for measurement of the crib fire temperatures in the test room (TC 2, 3, 4, 5). These thermocouples were placed 60 in., 36 in., 12 in., 1 in., below the ceiling respectively. Thermocouples were placed 1 in. below the center of the ceiling specimen, and 1 in. below the doorway opening. A thermocouple was placed 4 ft from the specimen corner 3 in. from the LHS wall and 1 in. below the ceiling. A thermocouple was placed 8 ft from the specimen corner 3 in. from the LHS wall and 1 in. below the ceiling. A thermocouple was placed 4 ft from the specimen corner 3 in. from the LHS wall and 3 ft. below the ceiling. Documentation of the test consists of color videotape, and thermocouple data. Temperature readings on all thermocouples are taken prior to the start of the test and continued at 15-second intervals to the completion of the fire exposure.

TEST CRITERIA

During the test, the test specimen shall not project flame through the doorway opening at any time, and flames shall not extend to the extremities of the specimen, which in this case are only 4 feet. The char pattern shall show a decreasing char layer as measured from the fire source to the extremities.

TEST STANDARD

UL 1715 Room Fire Test

5 Testing and Evaluation Results

RESULTS AND OBSERVATIONS

The test was started at 10:20 am on April 29, 2008. The ambient temperature was 70°F with a relative humidity of 43%. The thermocouples were positioned in accordance with the standard, and their outputs verified after connection to the data acquisition system. Critical events during the course of the test are described below.

TIME	OBSERVATION
0:00	Ignition of the excelsior
3:00	The walls began to discolor in the areas adjacent to the crib on the left wall.
3:20	Discoloration spread to approximately 4 feet up the walls.
4:09	The blackened and discolored area began to smoke.
4:40	Black discoloration was noted on the ceiling.
5:10	Blisters began to form on the walls.
9:20	The walls continued to blacken and blister.
11:30	A crack was noted on the back wall approximately 4 feet up. The crack ignited.
12:20	The corner ignited. The back wall crack continued to grow.
13:30	The left wall ignited.
15:00	Test terminated.

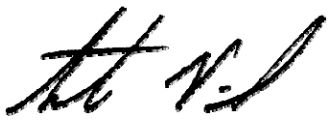
Post Test Observations:

After the test, the test room was allowed to cool and the following observations were made: Specimen was discolored and charred n the area impinged by fire and ignited. For additional details see the photographs in Appendix B.

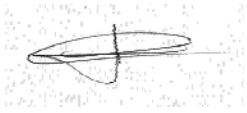
6 Conclusion

The samples submitted, and tested as described in this report met the requirements of the UL 1715 Acceptance Criteria.

INTERTEK TESTING SERVICES NA

Reported by: 

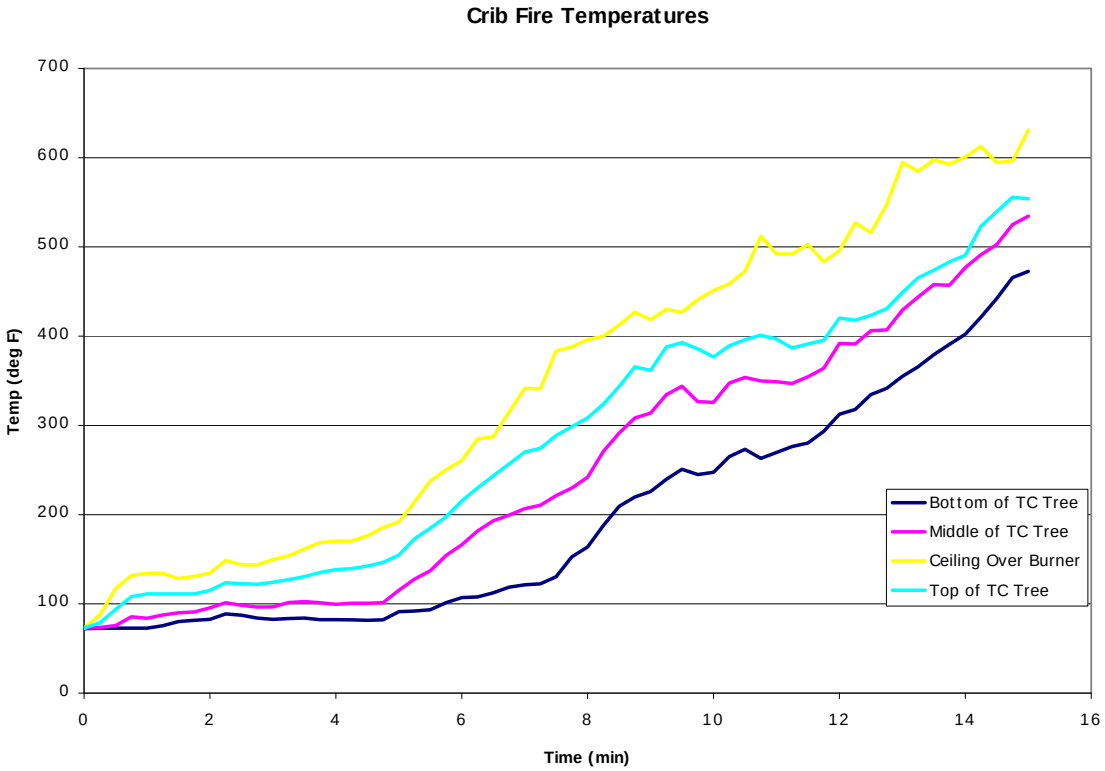
C. Anthony Peñaloza
Flammability Testing Team Leader, Building Products

Reviewed by: 

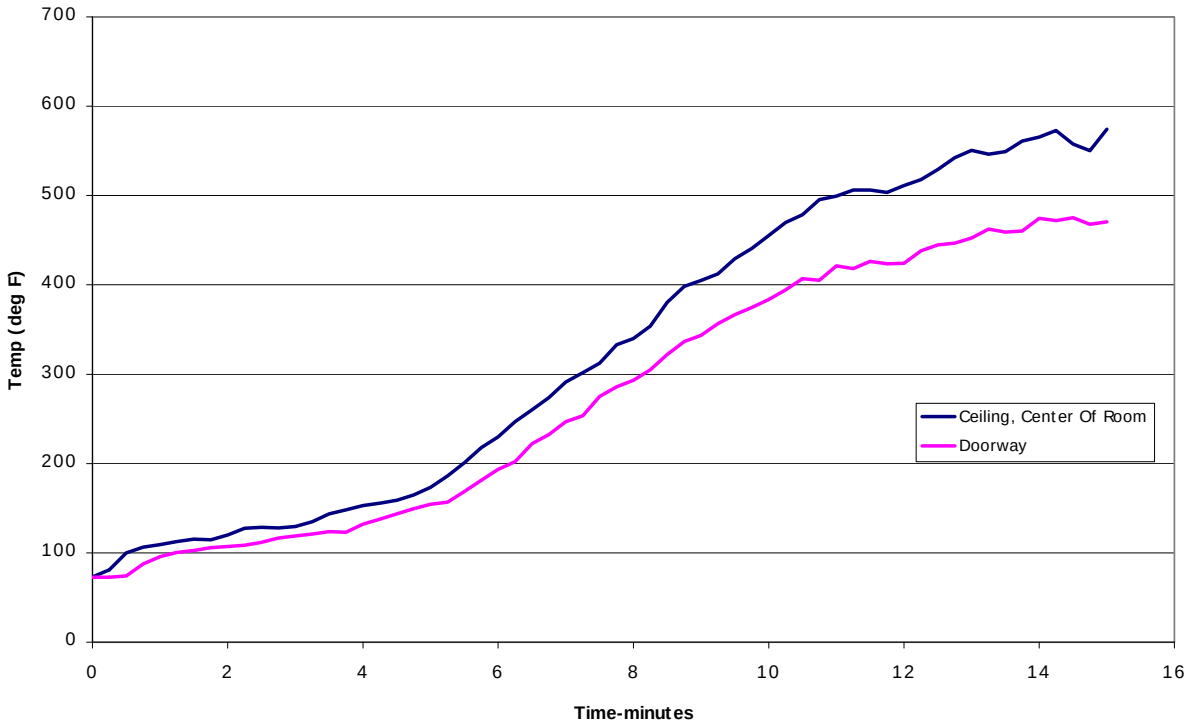
Javier O. Trevino
Sr. Project Engineer, Building Products

APPENDIX A

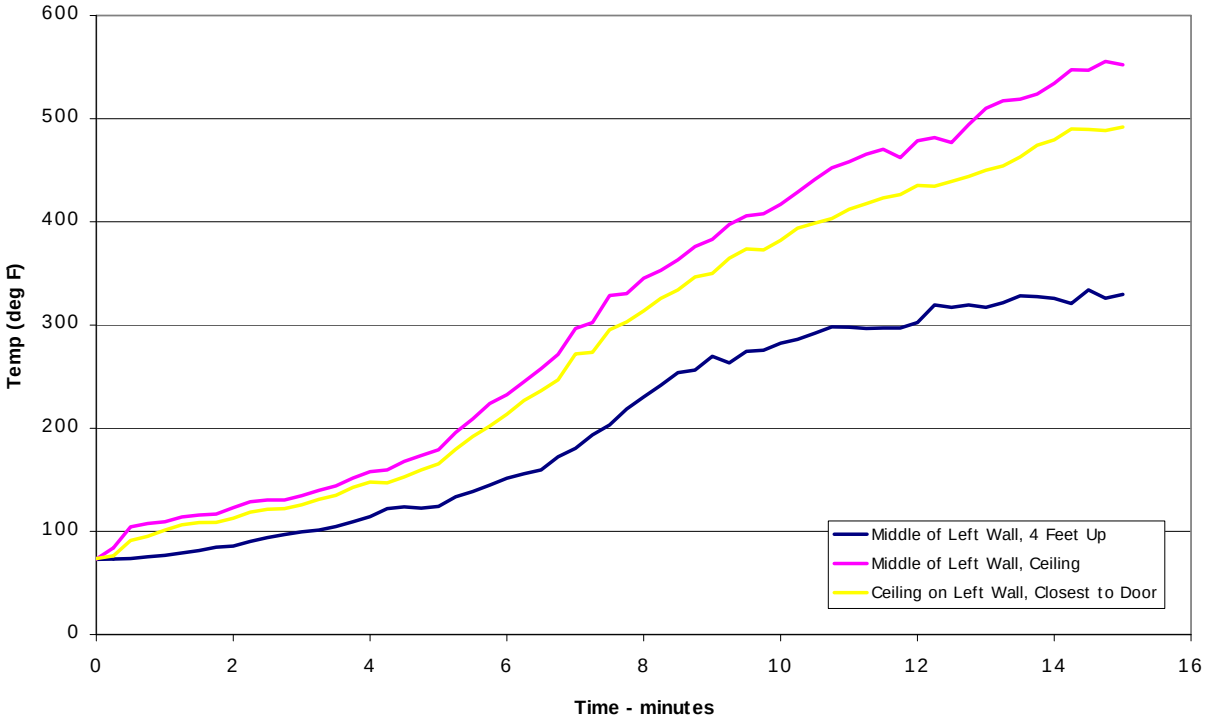
Test Data


Crib Fire Temperatures
Temp (deg F)
700
600
500
400
300
200
100
0
0
2
4
6
8
10
12
14
16
Time (min)
Bottom of TC Tree
Middle of TC Tree
Ceiling Over Burner
Top of TC Tree

Ceiling and Door Temperatures



Wall Temperatures

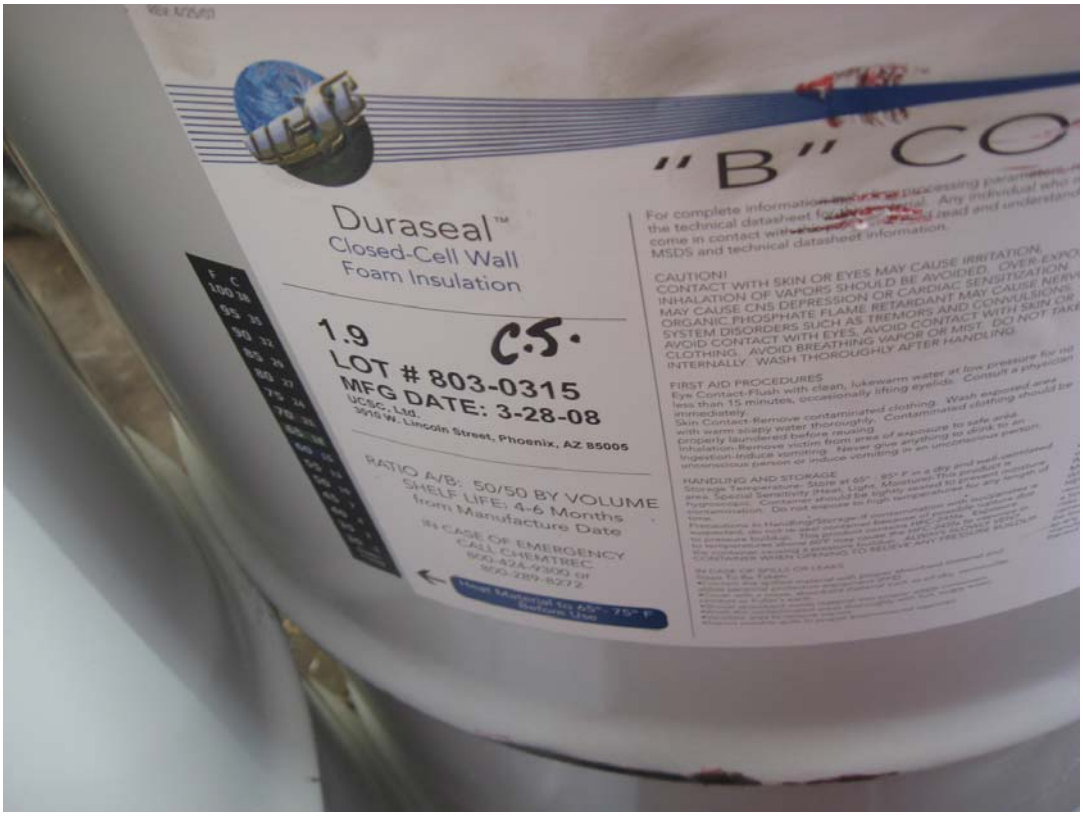


APPENDIX B

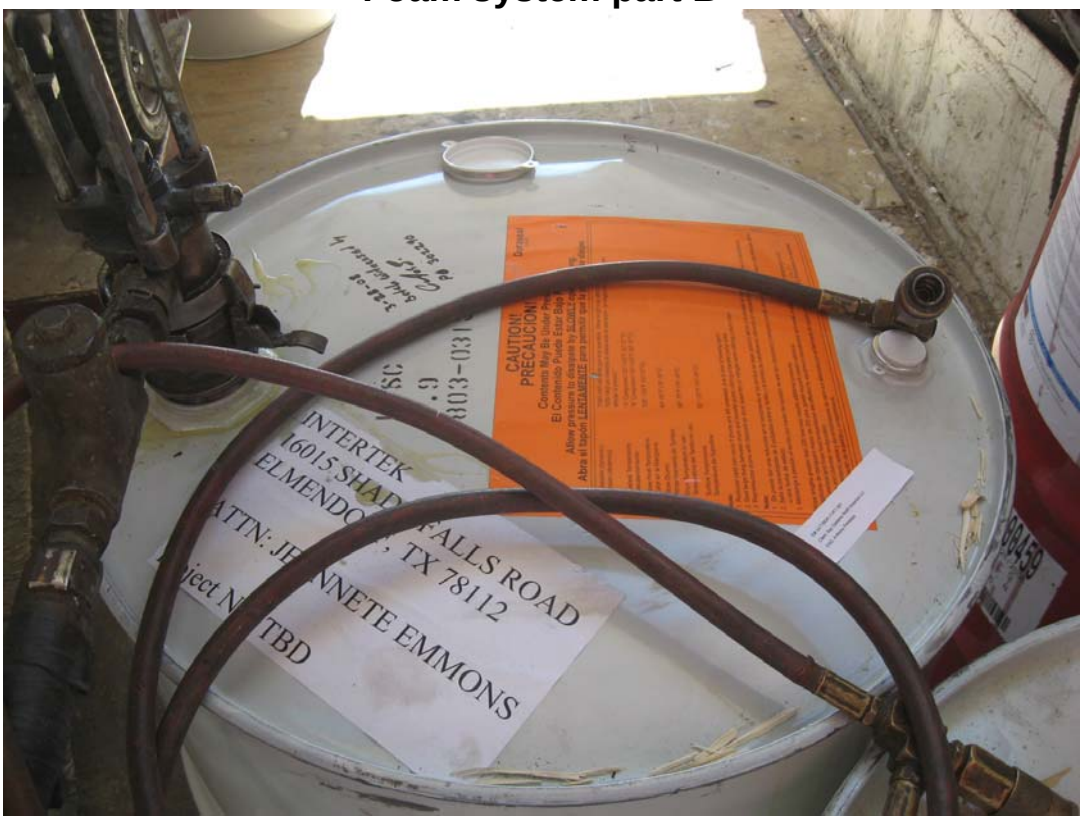
Photographs

Room Substrate

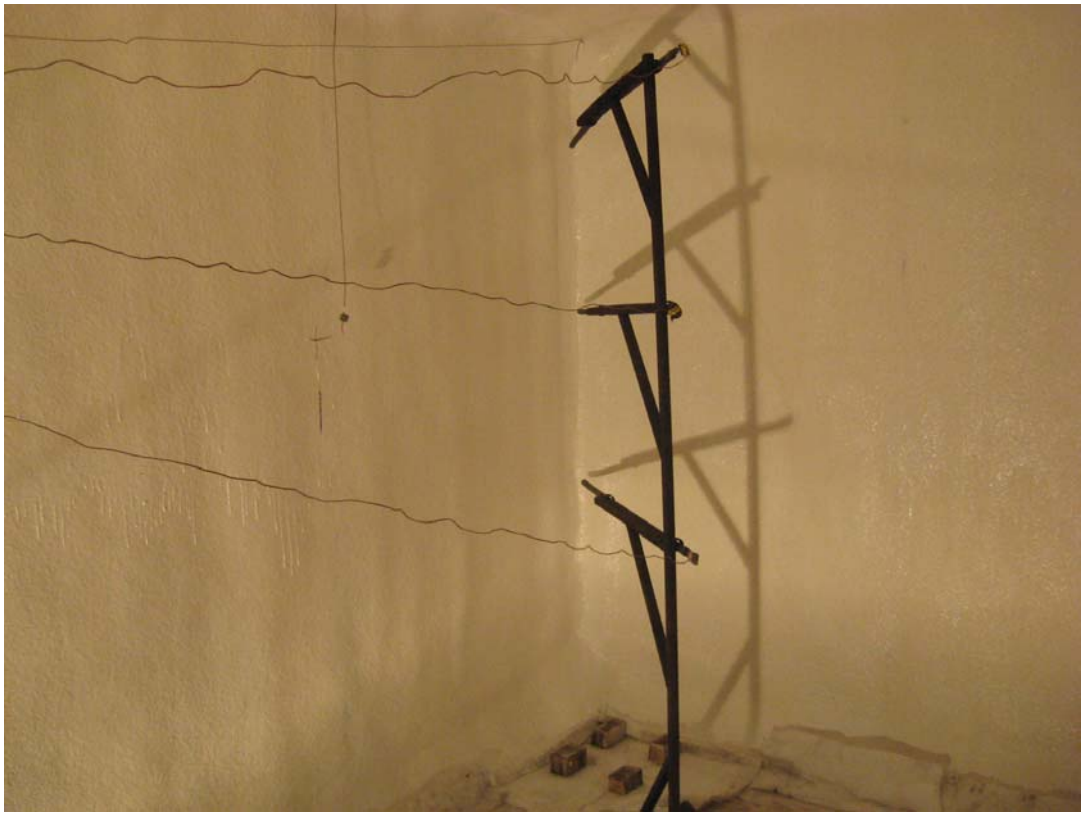
Foam system part A



Foam system part B



Foam system part B with initials



Pretest photo

Pretest photo

Start of Test

Test photo

Test photo

Test photo

Test photo

Test photo

Extinguishing Sample

Post-test photo

REVISION SUMMARY

DATE	SUMMARY
April 30, 2008	First issue. No revisions.
May 5, 2008	Corrections to project number and sample identification.