



**CLIENT: SHIKOKU INTERNATIONAL CORP.**

301 N. Rampart Street #C  
Orange, CA 92868  
Hirataka Ide

**Test Report No: 660447-3**

**Date: July 21, 2006**

**SAMPLE ID:** The Client submitted and identified the following test material as SAO/WRK applied to gypsum board.

**DATE OF RECEIPT:** Entered into SGS USTC sample tracking system on June 23, 2006.

**TESTING PERIOD:** July 14, 2006.


**AUTHORIZATION:** Testing authorized by Hirataka Ide.

**TEST REQUESTED:** Perform standard flame spread and smoke density developed classification tests on the sample supplied by the Client in accordance with ASTM Designation E84-05, "Standard Method of Test for Surface Burning Characteristics of Building Materials". The foregoing test procedure is comparable to UL 723, ANSI/NFPA No. 255, and UBC No. 8-1.

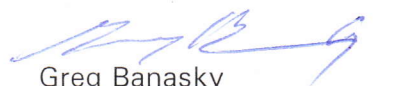
| <b>TEST RESULTS:</b> | <b><u>Flame Spread</u></b> | <b><u>Smoke Developed</u></b> |
|----------------------|----------------------------|-------------------------------|
|                      | 15                         | 10                            |

For detailed results see page 3.

**Tested by**

  
Brian Ortega  
Test Technician

**Signed for and on behalf of  
SGS U.S. Testing Company Inc.**

  
Greg Banasky  
Supervisor Fire Technology

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**PREPARATION AND CONDITIONING:** The sample material was submitted in three pieces, 22" wide by 8' long, conforming to test chamber dimensions.

Prior to testing, the specimen was placed in the conditioning room (maintained at  $73.4 \pm 5^\circ$  F and a relative humidity of  $50 \pm 5\%$ ) and allowed to reach moisture equilibrium.

**Cement Board Placement:** The cement boards were placed between the specimen and the furnace lid assembly.

**SUMMARY OF ASTM E84 RESULTS:** Because of the possible variations in reproducibility, the results are adjusted to the nearest figure divisible by 5. Smoke Developed values over 200 are rounded to the nearest figure divisible by 50.

| <u>SAMPLE IDENTIFICATION</u>    | <u>FLAME SPREAD</u> | <u>SMOKE DEVELOPED</u> |
|---------------------------------|---------------------|------------------------|
| SAO/WRK applied to gypsum board | 15                  | 10                     |

In order to obtain the Flame Spread Classification, the above results should be compared to the following table:

| <u>NFPA CLASS</u> | <u>UBC CLASS</u> | <u>FLAME SPREAD</u> |
|-------------------|------------------|---------------------|
| A                 | I                | 0 through 25        |
| B                 | II               | 26 through 75       |
| C                 | III              | 76 through 200      |

**BUILDING CODES CITED:**

1. National Fire Protection Association, ANSI/NFPA No. 101, "Life Safety Code", 1994 Edition.
2. Uniform Building Code, 1994 Edition, Chapter 8, Interior Finishes, Sections 801-807.



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E 84 TEST DATA SHEET:

CLIENT: SHIKOKU INTERNATIONAL CORP. DATE: 07/14/06

SAMPLE: SAO/WRK applied to gypsum board

FLAME SPREAD:

IGNITION: 1 minute, 5 seconds

FLAME FRONT: 3.5 feet maximum

TIME TO MAXIMUM SPREAD: 2 minutes, 24 seconds

TEST DURATION: 10 minutes

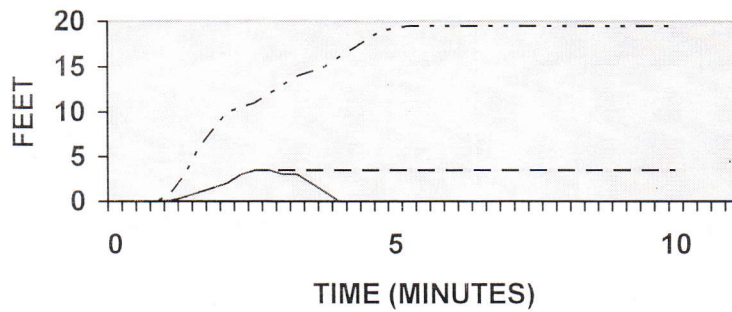
CALCULATION:  $28.59 \times 0.515 = 14.72$

SUMMARY: FLAME SPREAD: 15 SMOKE DEVELOPED: 10

OBSERVATIONS: Sample surface ignition was observed at 1 minute, 5 seconds. A flame front advance of 3.5 feet was observed at 2 minutes, 24 seconds.

## FLAME SPREAD

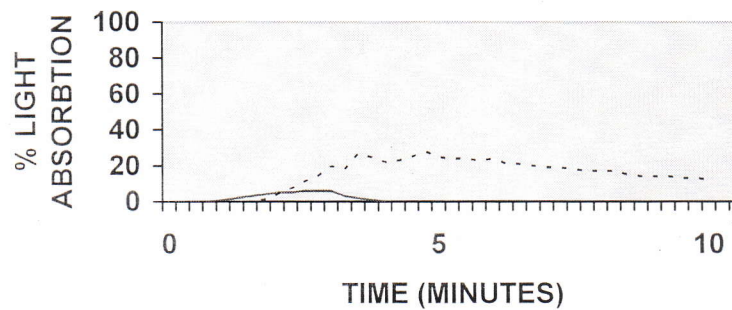
SAO/WRK APPLIED TO GYPSUM BOARD



— SAMPLE - - - - RED OAK - - - F.S AREA

## SMOKE DEVELOPED

SAO/WRK APPLIED TO GYPSUM BOARD



— SAMPLE - - - - RED OAK

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End of Report