CLIENT: SOUTH COAST AQMD  
21865 Copley Drive  
Diamond Bar, CA 91765  
Dan Russell

Test Report No: 573449-4   Date: April 10, 2006

SAMPLE ID: The Client submitted and identified the following test material as TPR² Heatshedder Insulative/Non-Flammable Coating HS Series coating, coverage rate of 125 sq.ft./gal. and TPR² Non-Flammable Paint IP Series Paint, coverage rate of 200 sq.ft./gal applied to 5/8” Fire Rated Gypsum Board. See Preparation Details on page 2.

DATE OF RECEIPT: Entered into SGS USTC sample tracking system on March 10, 2006.


AUTHORIZATION: Testing authorized by Dan Russell.

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.

TEST RESULTS:  

<table>
<thead>
<tr>
<th>Flame Spread</th>
<th>Smoke Density</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>5</td>
</tr>
</tbody>
</table>

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 TPR² Heatshedder Insulative/Non-Flammable Coating HS Series coating was roller applied to three, 22" wide by 96" long, pieces of 5/8" Fire Rated Gypsum Board at a coverage rate of 125 sq.ft./gallon in one application. The TPR² Heatshedder Insulative/Non-Flammable Coating HS Series coating was allowed to cure 48 hours prior to the application of the TPR² Non-Flammable Paint IP Series Paint at a coverage rate of 200 sq.ft./gal. The boards were allowed to cure for a minimum of 48 hours prior to testing.

Prior to testing, the specimen was placed in the conditioning room (maintained at 73.4 ± 5°C and a relative humidity of 50 ± 5%) and allowed to reach moisture equilibrium.

SUMMARY OF ASTM E84 RESULTS: Because of the possible variations in reproducibility, the results are adjusted to the nearest figure divisible by 5.

<table>
<thead>
<tr>
<th>SAMPLE IDENTIFICATION</th>
<th>FLAME SPREAD</th>
<th>SMOKE DENSITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>TPR²</td>
<td>5</td>
<td>5</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>NFPA CLASS</th>
<th>UBC CLASS</th>
<th>FLAME SPREAD</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>I</td>
<td>0 through 25</td>
</tr>
<tr>
<td>B</td>
<td>II</td>
<td>26 through 75</td>
</tr>
<tr>
<td>C</td>
<td>III</td>
<td>76 through 200</td>
</tr>
</tbody>
</table>

BUILDING CODES CITED:
E 84 TEST DATA SHEET:

CLIENT: SOUTH COAST AQMD  DATE: 03/29/06

SAMPLE: TPR²

FLAME SPREAD:

IGNITION: 1 minute, 20 seconds

FLAME FRONT: 1 foot maximum

TIME TO MAXIMUM SPREAD: 1 minute, 35 seconds

TEST DURATION: 10 minutes

CALCULATION: 8.51 x 0.515 = 4.38

SUMMARY: FLAME SPREAD: 5  SMOKE DENSITY: 5

OBSERVATIONS: Sample surface ignition was observed at 1 minute, 20 seconds. A flame front advance of 1 foot was observed at 1 minute, 35 seconds. Blistering and peeling were noted commencing at 1 minute, 25 seconds.
FLAME SPREAD

TPR2

FEET

TIME (MINUTES)

SAMPLE -- RED OAK -- FS AREA

SMOKE DEVELOPED

TPR2

% LIGHT ABSORPTION

TIME (MINUTES)

SAMPLE --- RED OAK

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End of Report