



SGS U.S. Testing Company Inc.

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REPORT NUMBER: 740796  
DATE: 5/30/97  
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REPORT OF TEST

CLIENT: E.M.C. INC.  
1400 North H Street  
San Bernardino, CA 92405

SUBJECT: CRITICAL RADIANT FLUX OF FLOOR COVERING SYSTEMS

REFERENCES: 1. Our confirmation to the Client dated May 27, 1997.  
2. Testing conducted on May 29, 1997.  
3. Testing authorized by Simon Liu.  
4. Test samples received on May 21, 1997.

SAMPLE ID: The Client submitted and identified the sample as:  
  
Kid Kushion Playground Mat  
  
Thickness: 2 1/2" nominal

TEST PROCEDURE: The submitted sample was tested for flammability in accordance with the procedures outlined in ASTM E648-95a, "Standard Test Method for Critical Radiant Flux of Floor Covering Systems Using a Radiant Heat Energy Source". The foregoing test procedure is comparable to NFPA No. 253.

PREPARED BY:

Brian Ortega  
Test Technician/gb

SIGNED FOR COMPANY BY:

for Michael S. Elliott  
Manager/Fire Tech. Dept.

Member of the SGS Group

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OUT THE WRITTEN PERMISSION OF THE SGS U.S. TESTING COMPANY INC. SAMPLES NOT DESTROYED IN TESTING ARE DISPOSED OF AFTER 30 DAYS.

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**PREPARATION  
AND CONDITIONING:**

The sample was submitted in three sections 10" wide by 42" long and adhered to 1/4" inorganic reinforced cement board with the Client submitted Chapco Safe-Set rubber flooring adhesive.

Prior to clamping the floor covering system in the mounting frame, the specimens were conditioned at  $21 \pm 3^{\circ}\text{C}$  and a relative humidity of  $50 \pm 5\%$  and allowed to reach moisture equilibrium.

**TEST PROCEDURE:**

The test chamber was pre-heated for one hour and the radiant panel black body temperature verified to be within  $5^{\circ}\text{C}$  of the temperature established during calibration. The pilot burner was ignited and the specimen inserted into the chamber. After a five minute pre-heat, the pilot burner flame was placed in contact with the specimen for five minutes, then removed. The test was continued until all flaming ceased. The distance burned was measured and converted to Critical Radiant Heat Flux at flame out.

**TEST RESULTS:**

Sample: Kid Kushion Playground Mat

<u>Specimen Number</u>	<u>Burn Distance Centimeters</u>	<u>Critical Radiant Heat Flux, Watt/cm<sup>2</sup></u>
1	57.0	0.26
2	43.0	0.43
3	<u>53.0</u>	<u>0.30</u>
Average	51.0	0.33

**OBSERVATIONS:**

Charring and smoke evolution was noted.

REPORT OF TEST

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**REQUIREMENTS:**

The 1988 Edition of the NFPA "Life Safety Code" provides the following classification for regulating interior flooring materials in specified occupancies:

- CLASS I** - Includes materials which have a minimum Critical Radiant Flux of 0.45 watts/cm<sup>2</sup>.
- CLASS II** - Includes materials which have a minimum Critical Radiant Flux of 0.22 watts/cm<sup>2</sup>.

Examples of the requirements for application of interior flooring material in exits and corridors for specified occupancies are listed below.

**Health Care Centers**

Class I in new facilities and for newly installed flooring materials in existing facilities.

**Child Care Centers**

Class I or II in both new and existing facilities.

**Hotels and Dormitories**

Class I or II in both new and existing facilities.

**Apartments**

Class I or II in both new and existing facilities.

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End of Report