

# Independent Textile Testing Service, Inc.

Test Number: 101016

PO Box 1948 - 1503 East Morris Street - Dalton, GA 30722  
 Phone: 706-278-3013 • Fax: 706-272-7057 • E-mail: info@ittslab.com

## Test Report

Customer: The United Agencies Pte Ltd

October 12, 2010


**Subject:** "Consumer Product Safety Commission (CPSC) FF 1-70"  
 "16 CFR 1630"  
 "ASTM D 2859-96"  
 "Consumer Product Safety Improvement Act"

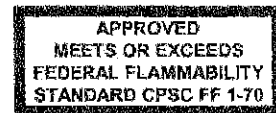
**Scope:** This test method covers the determination of the flammability of finished textile floor covering materials when exposed to an ignition source under controlled laboratory conditions. It is applicable to all types of textile floor coverings regardless of the method of fabrication or whether they are made from natural or man-made fibers.

### FLAMMABILITY TEST REPORT

STYLE	COLOR	ROLL	TESTED	PASSED
Royal Wilton			8	8

CPSIA  
 "Consumer Product Safety  
 Commission Accredited"  
 Lab ID: 1288

  
 \_\_\_\_\_  
 President L. Kent Suddeth



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**Testing**  
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Test Report

Customer: The United Agencies Pte Ltd

October 12, 2010

Subject: Specimens of the submitted sample were prepared and tested in accordance with the procedures proposed by the National Institute of Standards and Technology (formerly National Bureau of Standards), Technical Note 708 and NFPA 258, ASTM E 662-06.

**SMOKE DENSITY TEST (NIST)**

Operating Conditions

Irradiance: 2.5 watts/cm<sup>2</sup>      G Factor: 132  
Thermal Exposure: Flaming  
Furnace Voltage: 98  
Burner Fuel: Propane

Sample Description

Royal Wilton

Test Results

	#1	#2	#3	Average
Chamber Temperature, °F (start)	95	95	95	
Chamber Pressure	Maintained positive, under 3" H <sub>2</sub> O			
Minimum Transmittance (TM), %	40%	50%	17%	
at, minutes	10.45	10.98	9.57	10.33
Maximum Specific Optical Density (DM)	317	304	366	329
Clear Beam, (DC)	53	51	59	54
<b>DM, CORRECTED (DMC)</b>	264	253	307	275
Specific Optical Density at 1.5 minutes	26	22	32	27
Specific Optical Density at 4.0 minutes	277	237	304	273
Time to 90% DM, minutes	6.81	7.83	6.48	7.04
Time to DS = 16, minutes	1.43	1.43	1.37	1.41

  
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## SMOKE DENSITY TEST (NIST)

**Operating Conditions**

Irradiance:	2.5 watts/cm <sup>2</sup>	G Factor	132
Thermal Exposure:	Non-flaming		
Furnace Voltage:	101		
Burner Fuel:			

**Sample Description**

Royal Wilton

**Test Results**

	#1	#2	#3	Average
Chamber Temperature, °F (start)	95	95	95	
Chamber Pressure	Maintained positive, under 3" H <sub>2</sub> O			
Minimum Transmittance (TM), %	10%	6%	9%	
at, minutes	12.49	12.93	12.30	12.57
Maximum Specific Optical Density (DM)	792	821	798	804
Clear Beam, (DC)	57	71	59	62
<b>DM, CORRECTED (DMC)</b>	735	750	739	741
Specific Optical Density at 1.5 minutes	2	2	2	2
Specific Optical Density at 4.0 minutes	105	89	109	101
Time to 90% DM, minutes	9.16	9.63	8.00	8.93
Time to DS = 16, minutes	2.46	2.63	2.53	2.54

  
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October 12, 2010

Subject: Specimens of the submitted sample were prepared and tested in accordance with  
ASTM E 648-06 and/or Federal Test Method 372, NFPA 253

**FLOORING RADIANT PANEL TEST**

**Sample Description**

Royal Wilton

**Test Assembly**

Mounted on 6mm FRC Board  
(Using Premium Multi Purpose Adhesive)

<u>Test Results</u>	<u>Specimen No. 1</u>	<u>Specimen No. 2</u>	<u>Specimen No. 3</u>
Critical Radiant Flux	0.15 watts/cm <sup>2</sup>	0.14 watts/cm <sup>2</sup>	0.11 watts/cm <sup>2</sup>
Total Burn Length	74.0 cm	78.0 cm	88.0 cm
Flame Front Out	93.0 minutes	96.0 minutes	107.0 minutes

**Average Critical Radiant Flux** 0.13 watts/cm<sup>2</sup>  
**Estimated Standard Deviation** 0.02 watts/cm<sup>2</sup>  
**15.6% coefficient of variation**

  
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## Test Report

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Subject: Sample(s) of carpet submitted for testing by the Customer and identified below:

Sample Identification: Royal Wilton

<b>Test Method Conducted</b>
ASTM D-5252 Hexapod Drum Tester
ISO/TR 10361 Hexapod Tumbler
Ratings Based on CRI TM-101 Photographic Scales
Assessment of Surface Appearance Change in Pile Floor Coverings

### APPARATUS: WIRA INSTRUMENTATION HEXAPOD TUMBLER CARPET TESTER

#### PROCEDURE:

The test specimen described above was subjected to the reported cycles of "Hexapod" tumbling, removing the specimen every 2,000 cycles for restoration by vacuuming.

An Electrolux upright vacuum cleaner (Discovery II) was used, making four (4) forward and backward passes along the length of the specimen.

The samples were assessed using day-light equivalent vertical lighting (1500 lux). Samples were viewed at an angle of 45 degrees from 1½ meter distance, judging from all directions.

#### TEST RESULTS:

NUMBER OF HEXAPOD CYCLES	OVERALL APPEARANCE CHANGE
12,000	2.5

Key to Ratings
5 = Negligible or no change
4 = Slight change
3 = Moderate change
2 = Considerable change
1 = Severe change

  
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**Subject:** Sample(s) of carpet submitted for testing by the customer and identified below.

**Sample Identification:** Royal Wilton

**Test Method Conducted**  
AATCC Test Method 129  
Colorfastness to Ozone Under High Humidities

### Purpose and Scope

This test method is used for determining the resistance of the color of textiles to the action of ozone in the atmosphere at elevated temperatures with relative humidities above 85%.

### Procedure

A test specimen and a swatch of control sample are simultaneously exposed to ozone in an atmosphere which is maintained at  $87.5 \pm 2.5\%$  relative humidity and a temperature of  $40 \pm 1\text{C}$  ( $104 \pm 2\text{F}$ ) until the control sample shows a color change corresponding to that of a standard of fading. The cycles are repeated until the specimen shows a definite color change or for a prescribed number of cycles.

Test Specimen Identification	Number of Cycles	Rating
See Above	2	5

Key to Ratings	
5	Negligible or no change
4	Slight change
3	Noticeable change
2	Considerable change
1	Severe change

  
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## Test Report

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**Subject:** Sample(s) of carpet submitted for testing by the customer and identified below:

**Sample Identification:** Royal Wilton

Test Method Conducted  
AATCC Test Method 165  
Colorfastness to Crocking: Carpets

### Purpose and Scope

This test method is designed to determine the degree of color transfer from the surface of carpets to other surfaces by rubbing. The intent is to reproduce as nearly as possible true-to-life situations in all constructions whether dyed, printed or otherwise colored.

### Procedure

Test procedures employing white test cloths, both dry and wet with water are given.

Test Specimen Identification	Wet Crocking Rating	Dry Crocking Rating
See Above	4	3

Key to Ratings	
5	Negligible or no stain
4	Slight stain
3	Noticeable stain
2	Considerable stain
1	Severe stain

  
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Subject: Sample(s) of carpet submitted for testing by the customer and identified below:

Sample Identification: Royal Wilton

Test Method Conducted  
AATCC Test Method 16 Option E  
Colorfastness to Light (Water-Cooled Xenon Arc)

### Purpose and Scope

This test method provides the general principles and procedures which are currently in use for determining the colorfastness, to light of textile materials.

### Procedure

Samples of the textile material to be tested and the agreed upon comparison standard(s) are exposed simultaneously to a light source under specified conditions. The colorfastness to light of the specimen is evaluated by comparison of the color change of the exposed portion to the masked or control portion of the test specimen using the AATCC Gray Scale for Color Change or by instrumental color measurement.

Test Specimen Identification	Number of Cycles	Rating
See Above	2 (40 AFU's)	5

Key to Ratings	
5	Negligible or no change
4	Slight change
3	Noticeable change
2	Considerable change
1	Severe change

  
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**Subject:** Sample(s) of carpet submitted for testing by the customer and identified below:

**Sample Identification:** Royal Wilton

Test Method Conducted  
AATCC Test Method 175-2003  
Stain Resistance: Pile Floor Coverings

### Purpose and Scope

This test method is intended for use on pile floor coverings to determine the resistance to staining by acid food colors.


### Procedure

A specimen of pile floor covering is stained with a small volume of a diluted aqueous solution of Food Drug & Cosmetic (FD&C) Red 40 adjusted to an acid pH. After allowing the stained specimen to remain at controlled conditions for  $24 \pm 4$  hours, it is rinsed in water to remove all unused FD&C Red 40 dye. Any residual stain is assessed after drying.

Test Sample Rating 10

Table 1. Rating Scale

Grade Number	AATCC Stain Resistance Definition
10	No residual stain
1	Severe residual stain

  
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Subject: Sample(s) of carpet submitted for testing by the customer and identified below:

Sample Identification: Royal Wilton

Test Method Conducted  
AATCC 134-1996  
Electrostatic Propensity of Carpets

### Purpose and Scope

This test method is designed to assess the static generating propensity of carpets developed when a person walks across them by controlled laboratory simulation of conditions which may be met in practice, and more particularly, with respect to those conditions which are known from experience to be strongly contributory to excessive accumulation of static charges.

### Test Conditions:

Chamber Temperature: 70° F.

Chamber Relative Humidity: 20%

Test Results:	Sole	Underlay	Maximum Voltage 1 (kV)	Maximum Voltage 2 (kV)	Averages (kV)
Test I Step Test	Neolite	Plate	Neg. 0.6	Neg. 0.7	Neg. 0.7
Test II Scuff Test	Neolite	Plate	Neg. 0.3	Neg. 0.3	Neg. 0.3
Test III Step Test	Leather	Plate	Neg. 1.1	--	--
Test IV Scuff Test	Leather	Plate	Neg. 0.1	--	--

### Soles:

- a) Neolite XS 664
- b) Suede Leather

### Underlayment:

- a) Plate: Earth grounded metal plate
- b) H/J: Standard 40 oz./yd<sup>2</sup> rubberized Hair/Jute cushion.

  
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**Test Method Conducted**  
**ASTM D 1335 Tuft Bind of Pile Floor Coverings**

### Scope:

This test method covers the determination of the force required to pull a tuft completely out of a cut pile floor covering or to pull one or both legs of a loop free from the backing of looped pile floor coverings.

### *Test Results*

1)	3.0	6)	3.0	11)	5.3
2)	1.9	7)	6.4	12)	4.5
3)	2.1	8)	2.1	13)	4.6
4)	5.6	9)	5.2	14)	5.5
5)	5.1	10)	5.5	15)	5.0

**Average Tuft Bind: 4.3 lbs.**

  
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Test Method Conducted  
ITTS 004  
AACHEN Dimensional Stability

### Purpose and Scope


This test procedure measures the dimensional stability of textile floor coverings both modular and broadloom when subjected to varied moisture, heat and dry conditions.

Test Condition	Measurement	Percent Change
M <sub>0</sub>	18.1075	
MT <sub>1</sub>	18.0438	-0.352
MT <sub>2</sub>	18.0200	-0.483
MT <sub>3</sub>	18.0038	-0.573
MT <sub>4</sub>	18.0563	-0.283 -0.0513"

### Test Condition Key

- M<sub>0</sub> Machine Direction Original Measurement
- C<sub>0</sub> Cross Direction Original Measurement
- T<sub>1</sub> Two (2) hours in an oven at 60° C
- T<sub>2</sub> Two (2) hours in a .1% solution at 20° C
- T<sub>3</sub> Twenty-four (24) hours in an oven at 60° C
- T<sub>4</sub> Forty-eight (48) hours in standard climate at 21° C & 65% RH

Test Condition	Measurement	Percent Change
C <sub>0</sub>	18.1013	
CT <sub>1</sub>	18.0963	-0.028
CT <sub>2</sub>	17.8225	-1.540
CT <sub>3</sub>	18.0313	-0.387
CT <sub>4</sub>	18.0300	-0.394 -0.0712"

  
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