

INDUSTRIAL TESTING LABORATORY

Report No. 041019-01A

Page 1 of 8

TEST REPORT

Report Date: 25 January 2005

Test Component: King Tech KT8201Y Polyester Tricot Knitted Fluorescent Yellow-Green Background Material

Submitted by: Shanghai King Tech Industry Company, Ltd.

Test Laboratory: Calcoast - ITL
Emeryville, CA 94608

Products: Fluorescent Yellow-Green Knit Material (Solid)

SUMMARY

Specification: ANSI/ISEA 107-2004
American National Standard for High-Visibility Safety Apparel
Background Material

Color.....	Passed
Color Fastness to Crocking.....	Passed
Color Fastness to Perspiration.....	Passed
Color Fastness When Laundered (Method 1A).....	Passed
Color Fastness When Laundered, Dry-cleaned, Hypochlorite Bleached and/or Hot-pressed.....	Not Applicable
Colorfastness of Background Materials after Xenon Test.....	Passed
Dimensional Change of Background Material.....	Passed
Tensile Strength of Woven Materials.....	Not Applicable
Bursting Strength of Knitted Materials.....	Passed
Tear Resistance of Woven Materials.....	Not Applicable
Resistance to Water Penetration.....	Not Applicable
Water Repellency.....	Not Applicable
Water Vapor Permeability.....	Not Applicable

Signature of Responsible Laboratory Official:

Mark A. Evans
Photometric Engineer

TEST DATA SHEET

Material Tested: King Tech KT8201Y Polyester Tricot Knitted Fluorescent Yellow-Green Background Material

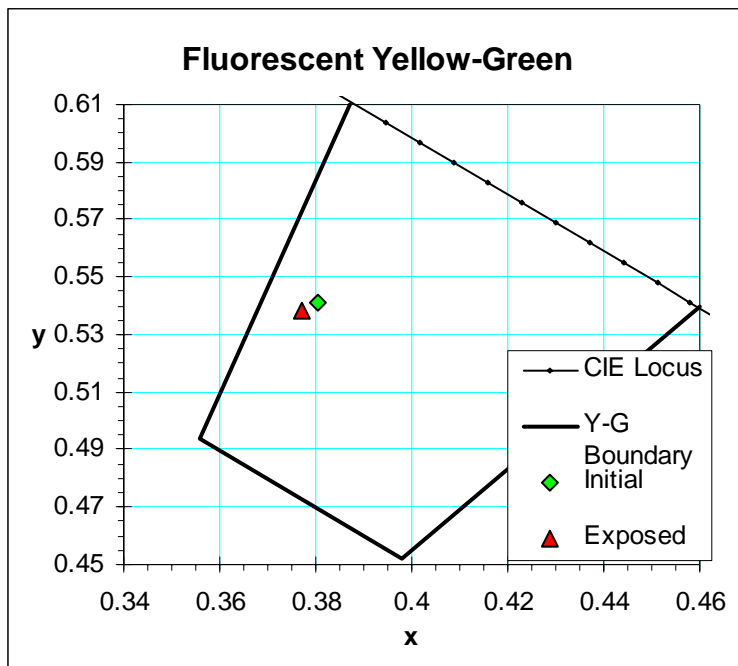
Color

Requirement: ANSI/ISEA 107-2004 7.1

Test Method: ASTM E1164-02
 Illuminant D65, 45/0 Geometry, 2° Standard Observer

The chromaticity coordinates shall be within one of the areas defined in Table 2 and the luminance factor shall exceed the corresponding minimum in Table 2.

Color	x	y	β	Required β
KT8201Y Yellow-Green	0.3805	0.5408	0.826	≥ 0.76



Comments: Sample meets all color requirements.

Report No. 041019-01A

TEST DATA SHEET

Material Tested: King Tech KT8201Y Polyester Tricot Knitted Fluorescent Yellow-Green Background Material

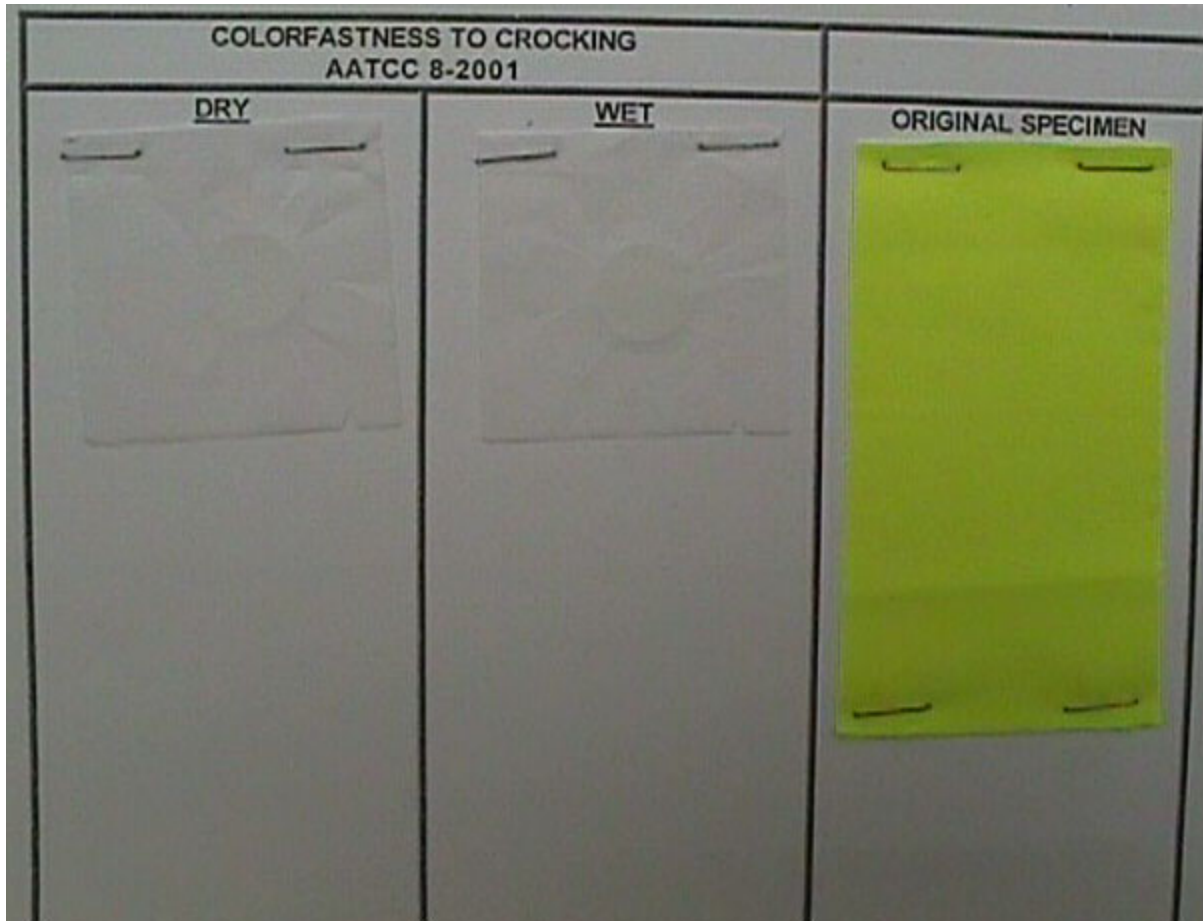
Color Fastness to Crocking

Requirement: ANSI/ISEA 107-2004 7.2.1

Test Method: AATCC Test Method 8 - 2001

The color fastness to crocking both wet and dry should be at least a grade 4.0 by the Gray Scale for Staining in accordance with AATCC 8-2001.

Color	Wet		Dry	
	Measured	Required	Measured	Required
KT8201Y Yellow-Green	4.0	≥4.0	4.5	≥4.0



Comments: Sample meets all colorfastness to crocking requirements.

TEST DATA SHEET

Material Tested: King Tech KT8201Y Polyester Tricot Knitted Fluorescent Yellow-Green Background Material

Color Fastness to Perspiration

Requirement: ANSI/ISEA 107-2004 7.2.2

Test Method: AATCC Test Method 15 - 2002

The color fastness to perspiration should be at least a grade 4.0 for color change by the Gray Scale for Color Change and at least a grade 3.0 for staining by the Gray Scale for Staining in accordance with AATCC 15-2002.

Perspiration Color	Color Change		Staining						
	Meas.	Req.	Acetate	Cotton	Nylon	Polyester	Acrylic	Wool	Req.
KT8201Y Yellow-Green	4.5	≥4.0	3.5	4.0	3.5	4.0	4.5	3.5	≥3.0



Comments: Sample meets all colorfastness to perspiration requirements.

TEST DATA SHEET

Material Tested: King Tech KT8201Y Polyester Tricot Knitted Fluorescent Yellow-Green Background Material

Color Fastness - When Laundered

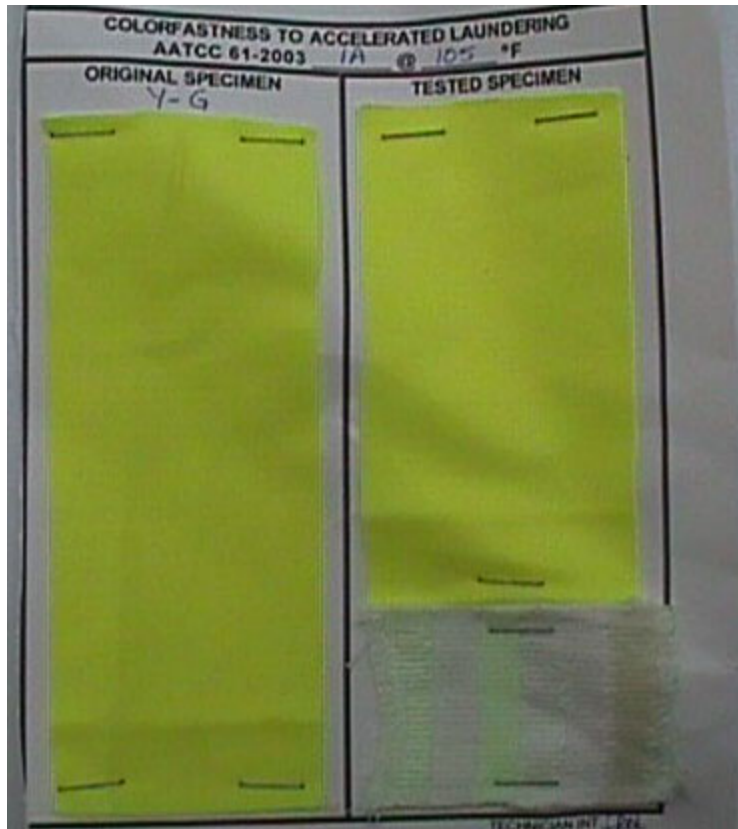
Requirement: ANSI/ISEA 107-2004 7.2.3

Test Method: Laundering - AATCC Test Method 61 - 2001 (method 1A / 105°F)

When the care label requirements are as specified in Table 4 the color fastness shall be determined in accordance with the performance requirements and test methods stated in Table 4.

Specimens shall be dried hanging in air at a temperature not exceeding 60°C with parts in contact only at the lines of stitching.

Laundering(2A)	Color Change		Staining						
	Meas.	Req.	Acetate	Cotton	Nylon	Polyester	Acrylic	Wool	Req.
KT8201Y Yellow-Green	4.5	≥4.5	3.5	4.5	3.0	4.5	5.0	4.5	≥3.0



Comments: Sample meets all colorfastness to home laundering requirements when tested using method 1A.

TEST DATA SHEET

Material Tested: King Tech KT8201Y Polyester Tricot Knitted Fluorescent Yellow-Green Background Material

Colorfastness of Background Materials After Xenon Test

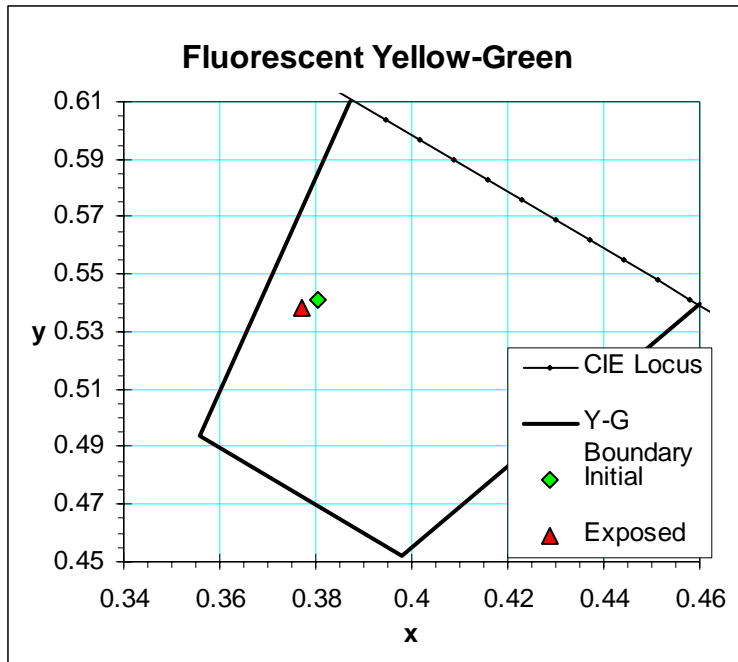
Requirement: ANSI/ISEA 107-2004 7.2.4

Test Method: AATCC Test Method 16 - 1998 (Option 3)

The color after exposure shall be within the areas defined by the coordinates in Table 2 and the luminance factor shall be not less than the corresponding minimum values in Table 2.

The light fastness of the test sample shall be determined in accordance with AATCC 16-1998 (Test Option 3). Expose the materials to 40 AATCC Fading Units.

Color	x	y	β	Required β
KT8201Y Yellow-Green	0.3772	0.5386	0.794	≥ 0.76



Comments: Sample meets all colorfastness to xenon exposure requirements.

Report No. 041019-01A

TEST DATA SHEET

Material Tested: King Tech KT8201Y Polyester Tricot Knitted Fluorescent Yellow-Green Background Material

Dimensional Change of Background Material

Requirement: ANSI/ISEA 107-2004 7.3

Test Method:
Home Laundering - AATCC Test Method 135-2000(3)(III)(A)(iii)

The dimensional change of background material shall not exceed $\pm 4\%$ in length and $\pm 2\%$ in width.

Color	Length		Width	
	Ave. Measured	Required	Ave. Measured	Required
KT8201Y Yellow-Green	-0.5%	$\leq 4\%$	-0.3%	$\leq 2\%$

Comments: Sample meets all dimensional change requirements.

Bursting Strength of Knitted Materials

Requirement: ANSI/ISEA 107-2004 7.4.2

Test Method: ASTM D3787-01

The minimum bursting strength shall be 267 N (60 lbs). Bursting strength shall be tested in accordance with ASTM D-3787 using sample specimens of 30mm diameter.

Color	Measured	Required
KT8201Y Yellow-Green	261.7 lbs	≥ 60 lbs

Comments: Sample meets all bursting strength requirements.

Report No. 041019-01A

TEST DATA SHEET

Material Tested: King Tech KT8201Y Polyester Tricot Knitted Fluorescent
Yellow-Green Background Material

PHOTOGRAPHS

