

### D3. Declaration of Conformity

#### Declaration of Conformity to ANSI/ISEA 107-2015, High-Visibility Safety Apparel

Certificate Number: V73832-2015

Company Name: Tingley Rubber Corporation

Address: 1551 S. Washington Ave Suite 403 Piscataway NJ 08854

Product Description: Class 2 Mesh/Solid, Surveyor Style Zipper Closure Vest, Fluorescent Yellow-Green

Model Number: V73832

Company declares that the above product meets all set requirements as stated in ANSI/ISEA 107-2015 as a compliant high-visibility safety item for Type R Performance Class 2. All relevant materials have been tested with documents referenced under this certificate number. This item meets all design requirements and has been measured for appropriate amount of visible reflective material and background materials for the smallest size offered for this product.

#### 1. VISIBLE BACKGROUND MATERIAL:

- Amount of visible background material (smallest size offered): >.50m<sup>2</sup> (775 in.<sup>2</sup>)

Please list each material that contributes towards the amount **VISIBLE BACKGROUND MATERIAL** listed above.

#### Material 1 Test Data

Test Lab: Vartest Labs	Material Type: <input checked="" type="checkbox"/> Knitted <input type="checkbox"/> Woven <input type="checkbox"/> Other:
Report #: TINGLE.A020416L	Material Content (such as Polyester, Modacrylic, and others): 100% Polyester
Date: 2/23/16	Weight: 3.05 oz <span style="float: right;">Color: Fl. Yellow-Green</span>
Description: 100% Polyester Mesh	

#### Material 2 Test Data

Test Lab: Vartest Labs	Material Type: <input checked="" type="checkbox"/> Knitted <input type="checkbox"/> Woven <input type="checkbox"/> Other:
Report #: TINGLE.A020416N	Material Content (such as Polyester, Modacrylic, and others): 100% Polyester
Date: 2/23/16	Weight: 3.05 oz <span style="float: right;">Color: Fl. Yellow-Green</span>
Description: 100% Polyester Solid	

#### Material 3 Test Data

Test Lab:	Material Type: <input type="checkbox"/> Knitted <input type="checkbox"/> Woven <input type="checkbox"/> Other:
Report #:	Material Content (such as Polyester, Modacrylic, and others):
Date:	Weight: <span style="float: right;">Color:</span>
Description:	

*\*Use separate sheet for additional materials*

**Declaration of Conformity (page 2 of 2)**

**2. VISIBLE RETROREFLECTIVE MATERIAL**

- Amount of visible retroreflective material (smallest size offered) .13m<sup>2</sup> (201 in.<sup>2</sup>)

Please list each type of material that contributes towards **VISIBLE RETROREFLECTIVE MATERIAL** listed above.

**Material 1 Test Data**

Test Lab: Calcoast – Test Report# 150123-02A	
Date: 2/20/15	Style #: CSR 1303-2
Description: 50mm wide sew on silver reflective trim	

**Material 2 Test Data**

Test Lab:	
Date:	Style #:
Description:	

*\*Use separate sheet for additional materials*

The undersigned hereby warrants that he/she is authorized to legally bind the company identified above.

Signed: \_\_\_\_\_ Title: \_\_\_\_\_

Print Name: \_\_\_\_\_ Date: \_\_\_\_\_

**Third Party Certification**  
**(ANSI/ISEA 107-2015)**  
**HIGH VISIBILITY COMPLIANCE CERTIFICATE**

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Submitted by: Tingley Rubber Corporation  
Name: Mesh Vest  
Color Hi Vis Fluorescent Yellow Green

Date: February 23, 2016

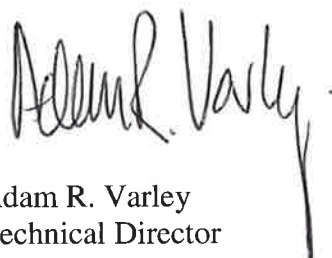
Report #: TINGLE.A020416L

The submitted fabric **MEETS** the requirements of ANSI/ISEA 107-2015 specification for the tests conducted in this report covering high visibility background material.

All of the above tests and evaluations were performed in accordance with ISO/IEC 17025 Quality Systems.

This certification applies to the background material only.

Certificate authorized by:



Adam R. Varley  
Technical Director



Serial 60085020416L.TINGLE

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\*This certification applies to the particular sample tested and to the specific tests carried out as dated and detailed in the report referenced above. It does not signify any measure of approval, control, supervision, or surveillance by Vartest Laboratories Inc. to this or any related product.

## ISO/IEC 17025 Certified Third Party Test Report

**DATE:** February 26, 2016 **FILE:** TINGLE.A020416L  
**PO #:** 17123

**CLIENT:** Tingley Rubber Corporation **ATTN:** Erika Puello  
1551 S Washington Ave, Suite 403  
Piscataway, NJ 08854

**SAMPLE IDENTIFIED BY CLIENT AS:**

Fabric Submitted  
Per ANSI/ISEA 107-2015 Specification  
Name: Mesh Vest  
Color Hi Vis Fluorescent Yellow Green

**EXECUTIVE SUMMARY:**

PASS FAIL

X

The submitted fabric **MEETS** the requirements of ANSI/ISEA 107-2015 Specification for the applicable tests conducted in this report covering high visibility background material.

**REQUIRED TESTS:**

Test/Method	Section	ANSI/ISEA 107 REQUIREMENTS	TEST RESULT	PASS/FAIL/NA
Determination of Color ASTM E1164-12 (Single layer)	8.1.1 8.2.4 10.2	Test specimen must fulfill the colorimetric requirements of Table 3 for background material	As submitted: x = y = % Y =	N/A
			After 40x Xenon x = y = % Y =	N/A
Determination of Color ASTM E1164-12 (Two layers of the same material)	8.1.1 8.2.4 10.2	Test specimen must fulfill the colorimetric requirements of Table 3 for background material	As submitted: x = 0.397 y = 0.534 % Y = 90.85	PASS
			After 40x Xenon x = 0.394 y = 0.512 % Y = 84.32	PASS
Colorfastness Crocking AATCC 8-2013	8.2.1	Wet 3.0 Dry 3.0	Wet: 4.5 Dry: 4.5	PASS PASS
Colorfastness Perspiration AATCC 15-2013	8.2.2	Shade change 4.0 Staining 3.0	Shade Change: 4.5 Acetate: 4.0 Cotton: 4.5 Nylon: 4.0 Polyester: 4.5 Acrylic: 5.0 Wool: 4.5	PASS PASS

## ISO/IEC 17025 Certified Third Party Test Report

FILE: TINGLE.A020416L

PO #: 17123

**SAMPLE IDENTIFIED BY CLIENT AS:**

Fabric Submitted  
Per ANSI/ISEA 107-2015 Specification  
Name: Mesh Vest  
Color Hi Vis Fluorescent Yellow Green

**REQUIRED TESTS (Cont.):**

Test/Method	Section	ANSI/ISEA 107 REQUIREMENTS	TEST RESULT	PASS/FAIL/NA
Bursting Strength (Knitted or Other Nonwovens) ASTM D6797-07 (2011)	8.4.1	267 N (60 lbf) (27.2fkg)	106.6 lbs average	PASS
Tear Resistance (Woven) ASTM D1424-09 (2013)	8.4.2	13 N (1326 gf) (2.92 lbf) Avg. force machine Avg. force cross-machine		N/A N/A

**TESTED AS CARE LABEL DICTATES:**

Test/Method	Section	ANSI/ISEA 107 REQUIREMENTS	TEST RESULT	PASS/FAIL/NA
Colorfastness Domestic Laundry AATCC 61-2013-2A 105°F (Modified)	8.2.3 Table 4	Shade Change 4.5 Staining 3.0	Shade Change: 4.5 Acetate: 4.0 Cotton: 4.5 Nylon: 3.5 Polyester: 4.5 Acrylic: 5.0 Wool: 4.0	PASS PASS
Colorfastness Commercial Laundry AATCC 61-2013-3A 145°F (Modified)	8.2.3 Table 4	Shade Change 4.5 Staining 3.0	Shade Change: Acetate: Cotton: Nylon: Polyester: Acrylic: Wool:	N/A N/A
Colorfastness Water AATCC 107-2013	8.2.3 Table 4	Shade Change 3.0 3.0	Shade Change: 4.5 Acetate: 4.0 Cotton: 4.5 Nylon: 4.0 Polyester: 4.5 Acrylic: 5.0 Wool: 4.5	PASS PASS
Colorfastness Hypochlorite Bleaching AATCC 61-2013-4A (Commercial)	8.2.3 Table 4	Fading 4.0		N/A
Colorfastness Hypochlorite Bleaching AATCC 61-2013-5A (Domestic)	8.2.3 Table 4	Fading 4.0		N/A



## ISO/IEC 17025 Certified Third Party Test Report

FILE: TINGLE.A020416L

PO #: 17123

**SAMPLE IDENTIFIED BY CLIENT AS:**

Fabric Submitted  
Per ANSI/ISEA 107-2015 Specification  
Name: Mesh Vest  
Color Hi Vis Fluorescent Yellow Green

**TESTED AS CARE LABEL DICTATES:**

Test/Method	Section	ANSI/ISEA 107 REQUIREMENTS	TEST RESULT	PASS/FAIL/NA
Colorfastness Hot-pressing AATCC 133-2013	8.2.3 Table 4	Shade Change: 4.5 Staining: 3.0	230°F Shade Change: 5.0 Staining: 5.0	PASS
			300°F Shade Change: 5.0 Staining: 5.0	PASS
			390°F Shade Change: 5.0 Staining: 5.0	PASS
Colorfastness Dry Cleaning AATCC 132-2013	8.2.3 Table 4	Shade Change 4.0		N/A
Dimensional change Domestic AATCC 135-2012 (3)IIIA(ii) @ 105°F	8.3.1	Woven L +/- 4% W +/-2%	5th Cycle Length= Width =	N/A
		Knit or Coated, Non-Woven	5th Cycle Length= -2.7% Width = -1.3%	PASS

**TESTED AS CARE LABEL DICTATES (cont.):**

Test/Method	Section	ANSI/ISEA 107 REQUIREMENTS	TEST RESULT	PASS/FAIL/NA
Dimensional change Commercial AATCC 96-2012 IIIC-A and/or E@145°F	8.3.1	Woven L +/- 4% W +/-2%	5th Cycle Length= Width =	N/A
		Knit or Coated, Non-Woven L +/- 7% W +/-5%	5th Cycle Length= Width =	N/A
Dimensional change Drycleaning AATCC 158-2011	8.3.1	Woven L +/- 4% W +/-2%	5th Cycle Length= Width =	N/A
		Knit or Coated, Non-Woven L +/- 7% W +/-5%	5th Cycle Length= Width =	N/A

**ISO/IEC 17025 Certified Third Party Test Report**

FILE: TINGLE.A020416L

PO #: 17123

**SAMPLE IDENTIFIED BY CLIENT AS:**

Fabric Submitted

Per ANSI/ISEA 107-2015 Specification

Name: Mesh Vest

Color Hi Vis Fluorescent Yellow Green

**TESTED AS CARE LABEL DICTATES (cont.):**

Test/Method	Section	ANSI/ISEA 107 REQUIREMENTS	TEST RESULT	PASS/FAIL/NA
Water Repellency AATCC 22-2010	8.5.1	90 New 70 After 5X Launderings	New: After:	N/A N/A
Water Resistance AATCC 35-2013	8.5.2	≤ 1 g of water penetration Level 1	New: After 5X Launderings:	N/A N/A
Waterproof AATCC 127-2013	8.5.3	200 cm New 200 cm After 5X Launderings	New: After:	N/A N/A
Breathability ASTM E96-2013 Procedure B or BW	8.6	Procedure B: 600 g/m <sup>2</sup> /24 hr microporous		N/A
		Procedure BW: 3600 g/m <sup>2</sup> /24 hr hydrophilic		N/A

Signed For The Company By

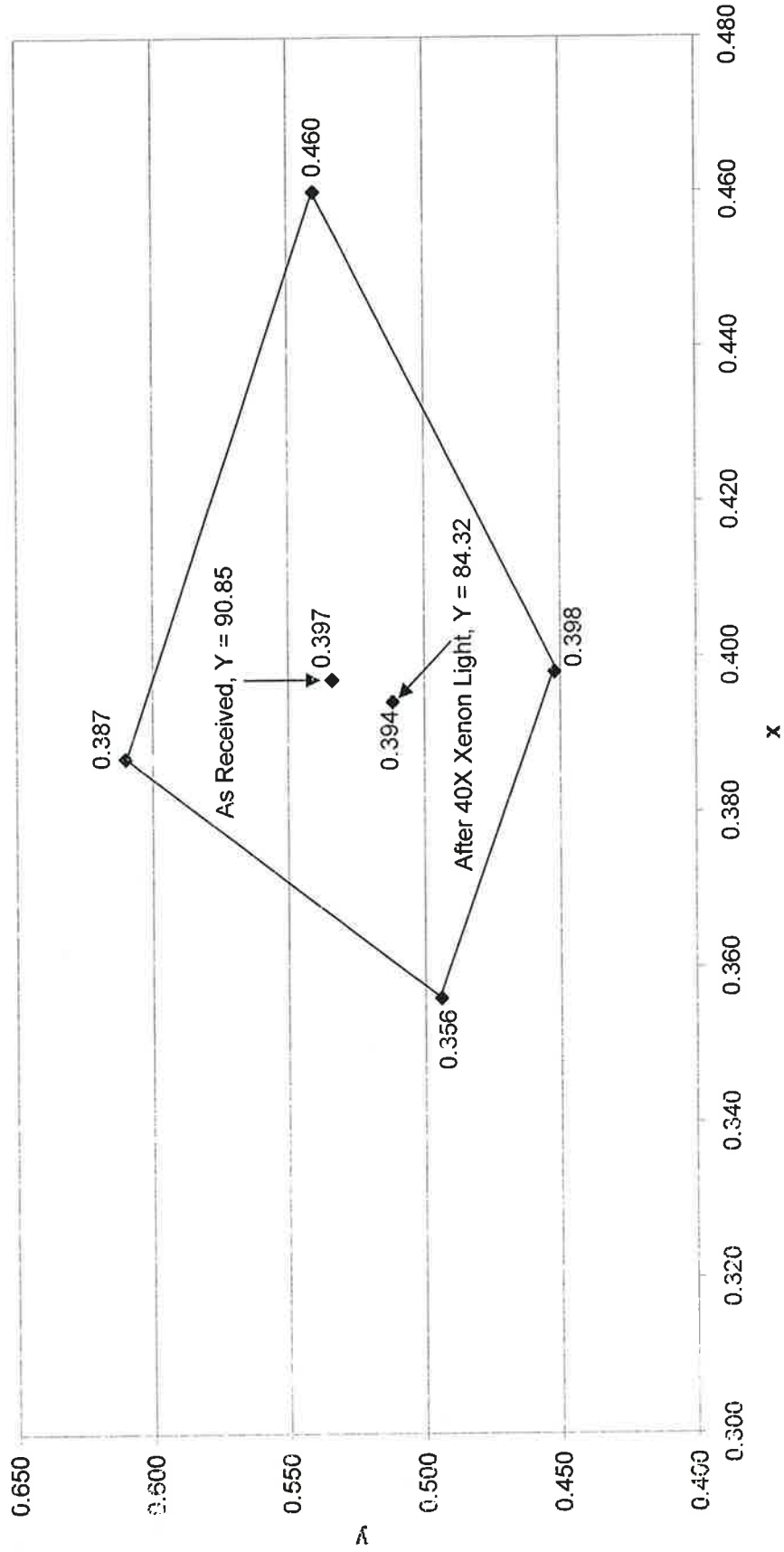
Adam R. Varley  
Technical Director

JG/02/211

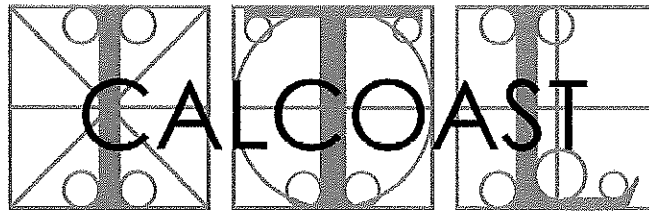


Stacy Sadowy  
Quality Assurance Supervisor

**Chromaticity Coordinates**  
**TINGLE.A.020416L**  
**Fluorescent Yellow-Green**  
**ANSI 107-2015 Requirement:  $Y \geq 70$**   
**Test Performed with Double Layers of Fabric**







INDUSTRIAL TESTING LABORATORY

**CERTIFICATE OF COMPLIANCE**

Based on Report No. 150123-02A

Report Date: 20 February 2015

Project Name: Tingley CSR 1303-2 Non-Waterproof Sew-On Silver Retroreflective Trim on PE Base

Submitted by: Tingley Rubber Corporation South Plainfield, NJ 07080

Test Laboratory: Calcoast - ITL San Leandro, CA 94577

Product: 50 mm (2") wide retroreflective trim, submitted 23 Jan 2015

**SUMMARY**

Specification: ANSI/ISEA 107-2010 American National Standard for High-Visibility Safety Apparel Retroreflective Material, Level 1 or 2

Color

Prior to Exposure..... Not Applicable  
Colorfastness..... Not Applicable

Photometric Performance, Initial

Level 2..... Passed  
Level 1..... Passed

Retroreflection after Test Exposure

Abrasion..... Passed  
Flexing..... Passed  
Folding at Cold Temperatures..... Passed  
Exposure to Temperature Variation..... Passed  
Washing (25X)..... Passed  
Dry-cleaning (0X)..... Not Tested  
Retroreflective Performance in Rainfall..... Passed  
Flame Resistance..... Not Tested

Written by:

Douglas G. Cummins  
Photometric Engineer

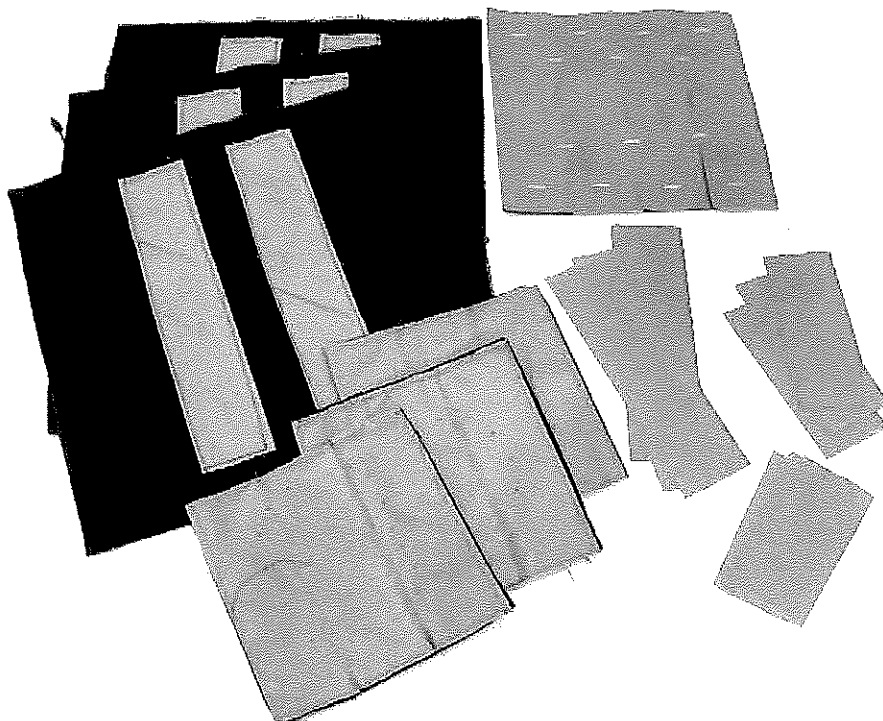
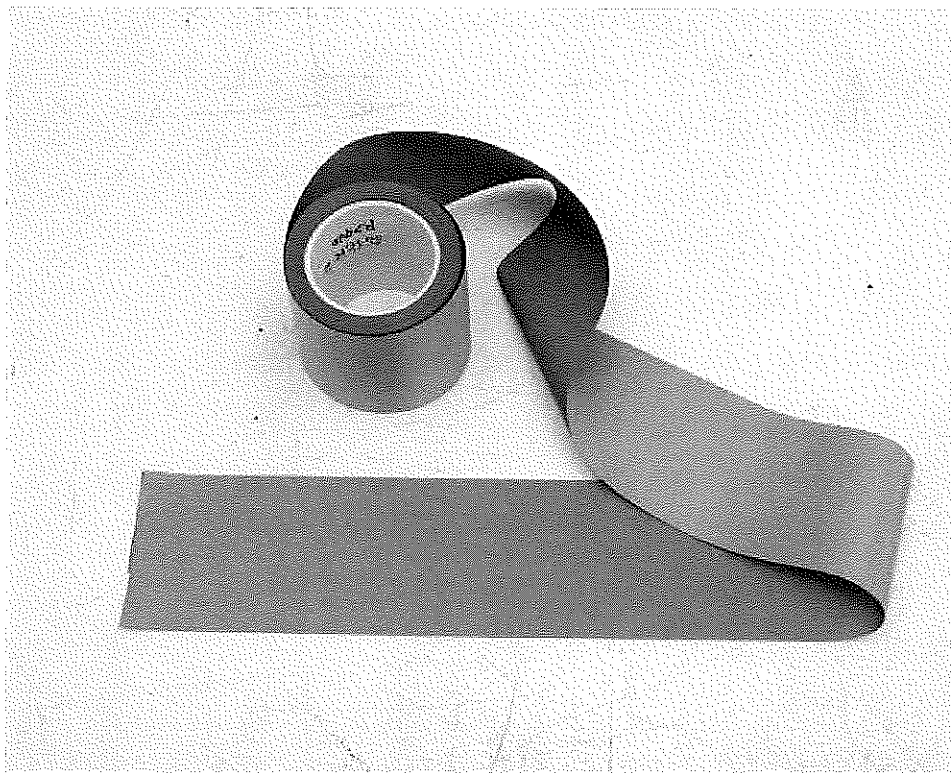
Approved by:

Mark A. Evans  
Laboratory Director

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**PHOTOGRAPH SHEET**

Project Name: Tingley CSR 1303-2 Non-Waterproof Sew-On  
Silver Retroreflective Trim on PE Base



**Third Party Certification**  
**(ANSI/ISEA 107-2015)**  
**HIGH VISIBILITY COMPLIANCE CERTIFICATE**

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Submitted by: Tingley Rubber Corporation  
Name: Solid Vest  
Color Hi Vis Fluorescent Yellow Green

Date: February 23, 2016

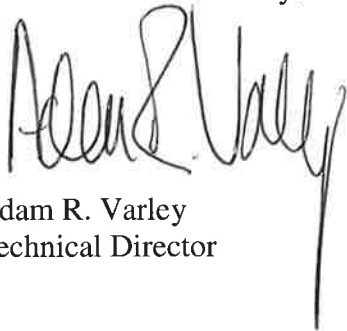
Report #: TINGLE.A020416N

The submitted fabric **MEETS** the requirements of ANSI/ISEA 107-2015 specification for the tests conducted in this report covering high visibility background material.

All of the above tests and evaluations were performed in accordance with ISO/IEC 17025 Quality Systems.

This certification applies to the background material only.

Certificate authorized by:



Adam R. Varley  
Technical Director



Serial 60085020416N.TINGLE

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\*This certification applies to the particular sample tested and to the specific tests carried out as dated and detailed in the report referenced above. It does not signify any measure of approval, control, supervision, or surveillance by Vartest Laboratories Inc. to this or any related product.

## ISO/IEC 17025 Certified Third Party Test Report

**DATE:** February 26, 2016 **FILE:** TINGLE.A020416N  
**PO #:** 17121

**CLIENT:** Tingley Rubber Corporation **ATTN:** Erika Puello  
1551 S Washington Ave, Suite 403  
Piscataway, NJ 08854

**SAMPLE IDENTIFIED BY CLIENT AS:**

Fabric Submitted  
Per ANSI/ISEA 107-2015 Specification  
Name: Solid Vest  
Color Hi Vis Fluorescent Yellow Green

**EXECUTIVE SUMMARY:**

PASS

FAIL

X

The submitted fabric **MEETS** the requirements of ANSI/ISEA 107-2015 Specification for the applicable tests conducted in this report covering high visibility background material.

**REQUIRED TESTS:**

Test/Method	Section	ANSI/ISEA 107 REQUIREMENTS	TEST RESULT	PASS/FAIL/NA
Determination of Color ASTM E1164-12 (Single layer)	8.1.1 8.2.4 10.2	Test specimen must fulfill the colorimetric requirements of Table 3 for background material	As submitted: x = y = % Y =	N/A
			After 40x Xenon x = y = % Y =	N/A
Determination of Color ASTM E1164-12 (Two layers of the same material)	8.1.1 8.2.4 10.2	Test specimen must fulfill the colorimetric requirements of Table 3 for background material	As submitted: x = 0.383 y = 0.539 % Y = 79.95	PASS
			After 40x Xenon x = 0.381 y = 0.522 % Y = 74.94	PASS
Colorfastness Crocking AATCC 8-2013	8.2.1	Wet 3.0 Dry 3.0	Wet: 4.5 Dry: 5.0	PASS PASS
Colorfastness Perspiration AATCC 15-2013	8.2.2	Shade change 4.0 Staining 3.0	Shade Change: 4.5 Acetate: 4.5 Cotton: 4.5 Nylon: 4.5 Polyester: 5.0 Acrylic: 5.0 Wool: 5.0	PASS PASS



**ISO/IEC 17025 Certified Third Party Test Report**

FILE: TINGLE.A020416N

PO #: 17121

**SAMPLE IDENTIFIED BY CLIENT AS:**

Fabric Submitted  
Per ANSI/ISEA 107-2015 Specification  
Name: Solid Vest  
Color Hi Vis Fluorescent Yellow Green

**REQUIRED TESTS (Cont.):**

Test/Method	Section	ANSI/ISEA 107 REQUIREMENTS	TEST RESULT	PASS/FAIL/NA
Bursting Strength (Knitted or Other Nonwovens) ASTM D6797-07 (2011)	8.4.1	267 N (60 lbf) (27.2fkg)	170.1 lbs average	PASS
Tear Resistance (Woven) ASTM D1424-09 (2013)	8.4.2	13 N (1326 gf) (2.92 lbf) Avg. force machine Avg. force cross-machine		N/A N/A

**TESTED AS CARE LABEL DICTATES:**

Test/Method	Section	ANSI/ISEA 107 REQUIREMENTS	TEST RESULT	PASS/FAIL/NA
Colorfastness Domestic Laundry AATCC 61-2013-2A 105°F (Modified)	8.2.3 Table 4	Shade Change 4.5 Staining 3.0	Shade Change: 4.5 Acetate: 4.0 Cotton: 5.0 Nylon: 3.5 Polyester: 5.0 Acrylic: 5.0 Wool: 4.5	PASS PASS
Colorfastness Commercial Laundry AATCC 61-2013-3A 145°F (Modified)	8.2.3 Table 4	Shade Change 4.5 Staining 3.0	Shade Change: Acetate: Cotton: Nylon: Polyester: Acrylic: Wool:	N/A N/A
Colorfastness Water AATCC 107-2013	8.2.3 Table 4	Shade Change 3.0 3.0	Shade Change: 4.5 Acetate: 4.5 Cotton: 4.5 Nylon: 4.5 Polyester: 5.0 Acrylic: 5.0 Wool: 4.5	PASS PASS
Colorfastness Hypochlorite Bleaching AATCC 61-2013-4A (Commercial)	8.2.3 Table 4	Fading 4.0		N/A
Colorfastness Hypochlorite Bleaching AATCC 61-2013-5A (Domestic)	8.2.3 Table 4	Fading 4.0		N/A



## ISO/IEC 17025 Certified Third Party Test Report

FILE: TINGLE.A020416N

PO #: 17121

**SAMPLE IDENTIFIED BY CLIENT AS:**

Fabric Submitted  
Per ANSI/ISEA 107-2015 Specification  
Name: Solid Vest  
Color Hi Vis Fluorescent Yellow Green

**TESTED AS CARE LABEL DICTATES:**

Test/Method	Section	ANSI/ISEA 107 REQUIREMENTS	TEST RESULT	PASS/FAIL/NA
Colorfastness Hot-pressing AATCC 133-2013	8.2.3 Table 4	Shade Change: 4.5 Staining: 3.0	230°F Shade Change: 5.0 Staining: 5.0	PASS
			300°F Shade Change: 5.0 Staining: 5.0	PASS
			390°F Shade Change: 5.0 Staining: 5.0	PASS
Colorfastness Dry Cleaning AATCC 132-2013	8.2.3 Table 4	Shade Change 4.0		N/A
Dimensional change Domestic AATCC 135-2012 (3)IIIA(ii) @ 105°F	8.3.1	Woven L +/- 4% W +/-2%	5th Cycle Length= Width =	N/A
		Knit or Coated, Non-Woven	5th Cycle Length= -2.2% Width = -1.0%	PASS

**TESTED AS CARE LABEL DICTATES (cont.):**

Test/Method	Section	ANSI/ISEA 107 REQUIREMENTS	TEST RESULT	PASS/FAIL/NA
Dimensional change Commercial AATCC 96-2012 IIIC-A and/or E@145°F	8.3.1	Woven L +/- 4% W +/-2%	5th Cycle Length= Width =	N/A
		Knit or Coated, Non-Woven L +/- 7% W +/-5%	5th Cycle Length= Width =	N/A
Dimensional change Drycleaning AATCC 158-2011	8.3.1	Woven L +/- 4% W +/-2%	5th Cycle Length= Width =	N/A
		Knit or Coated, Non-Woven L +/- 7% W +/-5%	5th Cycle Length= Width =	N/A

## ISO/IEC 17025 Certified Third Party Test Report

FILE: TINGLE.A020416N

PO #: 17121

**SAMPLE IDENTIFIED BY CLIENT AS:**

Fabric Submitted

Per ANSI/ISEA 107-2015 Specification

Name: Solid Vest

Color Hi Vis Fluorescent Yellow Green

**TESTED AS CARE LABEL DICTATES (cont.):**

Test/Method	Section	ANSI/ISEA 107 REQUIREMENTS	TEST RESULT	PASS/FAIL/NA
Water Repellency AATCC 22-2010	8.5.1	90 New 70 After 5X Launderings	New: After:	N/A N/A
Water Resistance AATCC 35-2013	8.5.2	≤ 1 g of water penetration Level 1	New: After 5X Launderings:	N/A N/A
Waterproof AATCC 127-2013	8.5.3	200 cm New 200 cm After 5X Launderings	New: After:	N/A N/A
Breathability ASTM E96-2013 Procedure B or BW	8.6	Procedure B: 600 g/m <sup>2</sup> /24 hr microporous		N/A
		Procedure BW: 3600 g/m <sup>2</sup> /24 hr hydrophilic		N/A

Signed For The Company By

Adam R. Varley  
Technical Director

JG/02/213



Stacy Sadowy

Quality Assurance Supervisor



**Chromaticity Coordinates**  
**TINGLE.A.020416N**  
**Fluorescent Yellow-Green**  
**ANSI 107-2015 Requirement:  $Y \geq 70$**

