## D3. Declaration of Conformity

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

Certificate Number: V70622-2015

Company Name: Tingley Rubber Corporation

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

Product Description: Class 2 Mesh, Hook and Loop Closure Vest, Fluorescent Yellow-Green

Model Number: V70622

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): >.50m² (775 in.²)

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

**Material 1 Test Data**

| | |
|---|---|
| Test Lab: Vartest Labs | Material Type: X Knitted ☐ Woven ☐ Other: |
| Report #: TINGLE.A020416L | Material Content (such as Polyester, Modacrylic, and others): 100% Polyester |
| Date: 2/23/16 | Weight: 3.05 oz Color: Fl. Yellow-Green |
| Description:100% Polyester Mesh | |

**Material 2 Test Data**

| | |
|---|---|
| Test Lab: | Material Type: ☐Knitted ☐ Woven ☐ Other: |
| Report #: | Material Content (such as Polyester, Modacrylic, and others): |
| Date: | Weight: Color: |
| Description: | |

**Material 3 Test Data**

| | |
|---|---|
| Test Lab: | Material Type: ☐Knitted ☐ Woven ☐ Other: |
| Report #: | Material Content (such as Polyester, Modacrylic, and others): |
| Date: | Weight: Color: |
| 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) .13m² (201 in.²)

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: _____

Vartest Laboratories

Quality Assurance & Compliance Testing
Utilizing Textile & Related Technologies

19 West 36 Street, Tenth Floor
New York, NY 10018
tel: 212 947 8391 fax: 212 947 8719

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

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

ACCREDITED
Testing Cert #2180.01

Serial 60085020416L.TINGLE

*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.

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# ISO/IEC 17025 Certified Third Party Test Report

**DATE:** February 26, 2016

**FILE:** TINGLE.A020416L
**PO #:** 17123

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

**ATTN:** Erika Puello

**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<br>ASTM E1164-12<br>(Single layer) | 8.1.1<br>8.2.4<br>10.2 | Test specimen must fulfill the colormetric require - ments of Table 3 for background material | As submitted:<br>x =<br>y =<br>% Y =<br><br>After 40x Xenon<br>x =<br>y =<br>% Y = | N/A<br><br><br><br><br>N/A |
| Determination of Color<br>ASTM E1164-12<br>(Two layers of the same material) | 8.1.1<br>8.2.4<br>10.2 | Test specimen must fulfill the colormetric require - ments of Table 3 for background material | As submitted:<br>x = 0.397<br>y = 0.534<br>% Y = 90.85<br><br>After 40x Xenon<br>x = 0.394<br>y = 0.512<br>% Y = 84.32 | PASS<br><br><br><br>PASS |
| Colorfastness Crocking<br>AATCC 8-2013 | 8.2.1 | Wet 3.0<br>Dry 3.0 | Wet: 4.5<br>Dry: 4.5 | PASS<br>PASS |
| Colorfastness Perspiration<br>AATCC 15-2013 | 8.2.2 | Shade change 4.0<br>Staining 3.0 | Shade Change: 4.5<br>Acetate: 4.0<br>Cotton: 4.5<br>Nylon: 4.0<br>Polyester: 4.5<br>Acrylic: 5.0<br>Wool: 4.5 | PASS<br>PASS |

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# 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)<br>Avg. force machine<br>Avg. force cross-machine | | N/A<br>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<br>Staining 3.0 | Shade Change: 4.5<br>Acetate: 4.0<br>Cotton: 4.5<br>Nylon: 3.5<br>Polyester: 4.5<br>Acrylic: 5.0<br>Wool: 4.0 | PASS<br>PASS |
| Colorfastness Commercial Laundry AATCC 61-2013-3A 145°F (Modified) | 8.2.3 Table 4 | Shade Change 4.5<br>Staining 3.0 | Shade Change:<br>Acetate:<br>Cotton:<br>Nylon:<br>Polyester:<br>Acrylic:<br>Wool: | N/A<br>N/A |
| Colorfastness Water AATCC 107-2013 | 8.2.3 Table 4 | Shade Change 3.0<br>3.0 | Shade Change: 4.5<br>Acetate: 4.0<br>Cotton: 4.5<br>Nylon: 4.0<br>Polyester: 4.5<br>Acrylic: 5.0<br>Wool: 4.5 | PASS<br>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 |

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# 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<br>Hot-pressing<br>AATCC 133-2013 | 8.2.3<br>Table 4 | Shade Change: 4.5<br>Staining: 3.0 | 230°F<br>Shade Change: 5.0<br>Staining: 5.0<br>300°F<br>Shade Change: 5.0<br>Staining: 5.0<br>390°F<br>Shade Change: 5.0<br>Staining: 5.0 | PASS<br><br>PASS<br><br>PASS |
| Colorfastness<br>Dry Cleaning<br>AATCC 132-2013 | 8.2.3<br>Table 4 | Shade Change 4.0 | | N/A |
| Dimensional change<br>Domestic<br>AATCC 135-2012<br>(3)IIIA(ii) @ 105°F | 8.3.1 | Woven<br>L +/- 4% W +/-2% | 5th Cycle<br>Length=<br>Width = | N/A |
| | | Knit or Coated, Non-Woven | 5th Cycle<br>Length= -2.7%<br>Width = -1.3% | PASS |

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

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

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# 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<br>AATCC 22-2010 | 8.5.1 | 90 New<br>70 After 5X Launderings | New:<br>After: | N/A<br>N/A |
| Water Resistance<br>AATCC 35-2013 | 8.5.2 | ≤ 1 g of water penetration<br>Level 1 | New:<br>After 5X Launderings: | N/A<br>N/A |
| Waterproof<br>AATCC 127-2013 | 8.5.3 | 200 cm New<br>200 cm After 5X Launderings | New:<br>After: | N/A<br>N/A |
| Breathability<br>ASTM E96-2013<br>Procedure B or BW | 8.6 | Procedure B:<br>600 g/m2/24 hr<br>microporous<br><br>Procedure BW:<br>3600 g/m2/24 hr<br>hydrophilic | | N/A<br><br>N/A |

Signed For The Company By

Adam R. Varley
Technical Director

JG/02/211

Stacy Sadowy
Quality Assurance Supervisor

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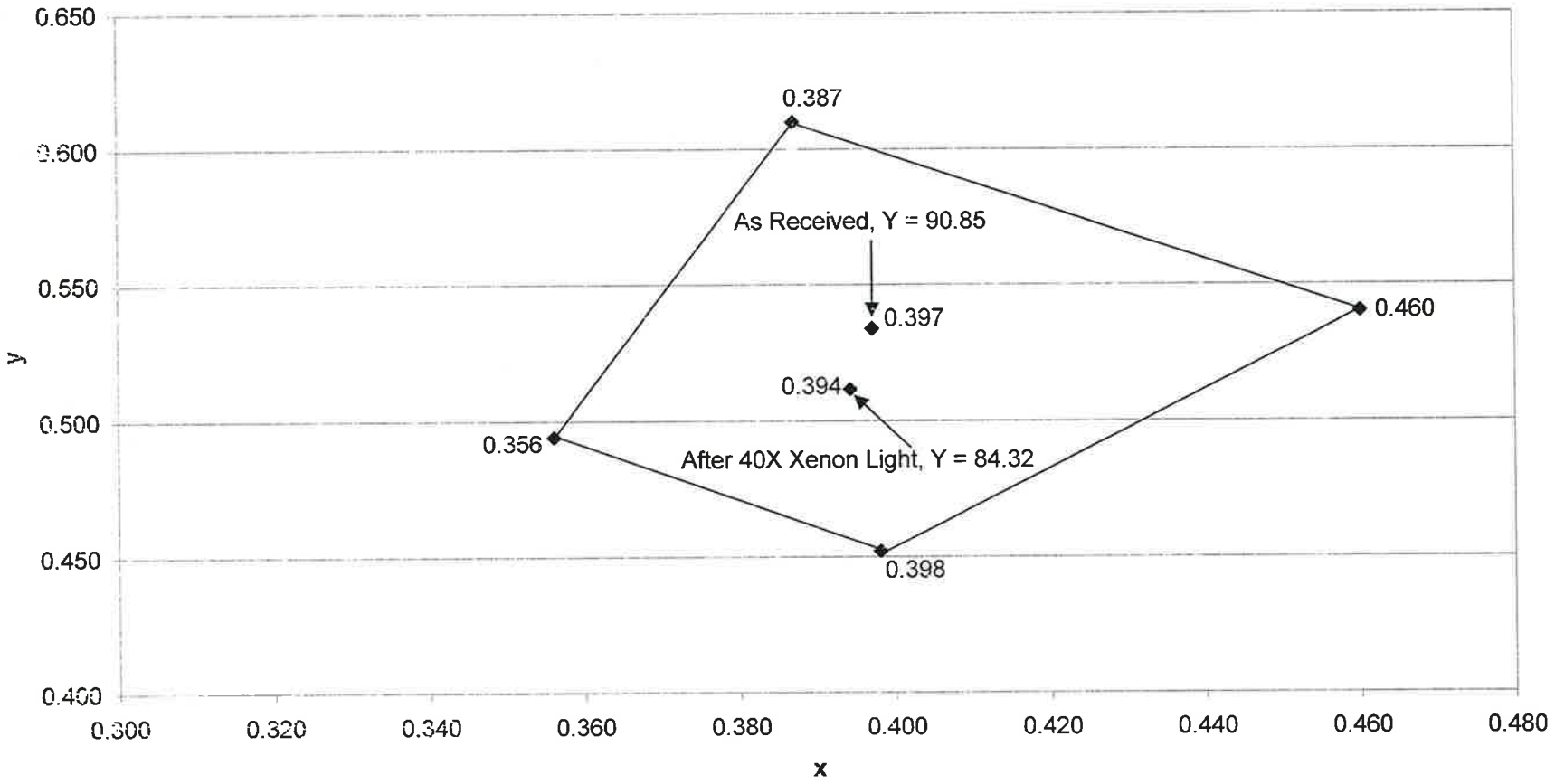
# Chromaticity Coordinates
# TINGLE.A.020416L
# Fluorescent Yellow-Green
# ANSI 107-2015 Requirement: Y ≥ 70
# Test Performed with Double Layers of Fabric



# 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

**PHOTOGRAPH SHEET**

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