# E3. Declaration of Conformity

Declaration of Conformity to ANSI/ISEA 107-2020, High-Visibility Safety Apparel

Supplier name and address: Tingley Rubber Corporation 1551 S. Washington Ave., Suite 403 Piscataway, NJ 08854  Product information (name, model number, part number or other information as applicable): Class 3 Hooded Zipper Closure Sweatshirt, Fluorescent Orange-Red Model Number: S78129  Company declares that the above product meets all set requirements as stated in ANSI/ISEA 107-2020 as a zompliant high-visibility safety item for Performance Class 3, Type R.; All relevant materials have been ested 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.  VISIBLE BACKGROUND MATERIAL:  • Amount of visible background material (smallest size offered):  • Amount of visible background materials.  detail Identification  Test Lab: Intertek  Report #: GZHT91071781  Description: 100% Polyester Knit Fleece  Material Content (such as Polyester, Modacrylic, and others): 100% Polyester  Material I ype:   Knitted   Woven   Other: 100% Polyester Knit Fleece  Material 2 Identification  Test Lab:   Material Type:   Knitted   Woven   Other: 100% Polyester   Weight: 8.25 oz   Color: Fl. Orange-Red  Material 2 Identification  Test Lab:   Material Type:   Knitted   Woven   Other: 100% Polyester   Material Itype:   Knitted   Woven   Other: 100% Polyester
1551 S. Washington Ave., Suite 403   Piscataway, NJ 08854
Piscataway, NJ 08854  Product information (name, model number, part number or other information as applicable): Class 3 Hooded Zipper Closure Sweatshirt, Fluorescent Orange-Red Model Number: S78129  Company declares that the above product meets all set requirements as stated in ANSI/ISEA 107-2020 as a compliant high-visibility safety item for Performance Class_3_, Type_R_; All relevant materials have been ested with documents referenced under this certificate number. This item meets all design equirements and has been measured for appropriate amount of visible reflective material and background materials for the smallest size offered for this product.  VISIBLE BACKGROUND MATERIAL:  • Amount of visible background material (smallest size offered):
Product information (name, model number, part number or other information as applicable): Class 3 Hooded Zipper Closure Sweatshirt, Fluorescent Orange-Red Model Number: S78129 Company declares that the above product meets all set requirements as stated in ANSI/ISEA 107-2020 as a compliant high-visibility safety item for Performance Class 3, Type R.; All relevant materials have been ested 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.  VISIBLE BACKGROUND MATERIAL:  • Amount of visible background material (smallest size offered):  • Amount of visible background materials (smallest size offered):  • Amount of visible background materials.  **Background material that contributes towards the amount VISIBLE BACKGROUND MATERIAL listed above se separate sheet for addition materials.  **Background material Type: X Knitted   Woven   Other:    **Description: 100mp Polyester Knit Fleece**  **Material Content (such as Polyester, Modacrylic, and others):    **Description: 100mp Polyester Knit Fleece**  **Material Type:   Knitted   Woven   Other:    **Description: 100mp Polyester Knit Fleece**  **Material Type:   Knitted   Woven   Other:    **Material 2 Identification**  **Material Content (such as Polyester, Modacrylic, and others):
Class 3 Hooded Zipper Closure Sweatshirt, Fluorescent Orange-Red Model Number: S78129 Company declares that the above product meets all set requirements as stated in ANSI/ISEA 107-2020 as a zompliant high-visibility safety item for Performance Class 3, Type R.; All relevant materials have been ested 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.  VISIBLE BACKGROUND MATERIAL:  • Amount of visible background material (smallest size offered):
Model Number: \$\frac{978129}{2000}\$ Company declares that the above product meets all set requirements as stated in ANSI/ISEA 107-2020 as a compliant high-visibility safety item for Performance Class \$\frac{3}{3}\$, Type \$\frac{R}{2}\$; All relevant materials have been ested 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.  \[ \begin{align*}
compliant high-visibility safety item for Performance Class_3_, Type_R_; All relevant materials have been ested 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.  VISIBLE BACKGROUND MATERIAL:  * Amount of visible background material (smallest size offered):  * Amount of visible background material (smallest size offered):  * Solom² (1240 in.²)  * John Material Item meets all design reflective material and background materials for the smallest size offered for this product.  * Amount of visible background material (smallest size offered):  * Solom² (1240 in.²)  * John Material Item Material Item Material Item Material Date: X Knitted   Woven   Other:  * Date: 1 Item Material Type: X Knitted   Woven   Other:  * Date: 11/15/2021   Weight: 8.25 oz   Color: Fl. Orange-Red  * Description: 100% Polyester Knit Fleece  * Material Item   Woven   Other:  * Date: 1 Item Material Item   Woven   Other:  * Date: 1 Item   Material Item   Woven   Other:  * Solor: Material Item   Woven   Other:  * Material Content (such as Polyester, Modacrylic, and others):  * Weight: Color:
Amount of visible background material (smallest size offered):    >0.80m² (1240 in.²)
lease list each material that contributes towards the amount VISIBLE BACKGROUND MATERIAL listed above se separate sheet for addition materials.    Atterial 1 Identification
Atterial 1 Identification  Test Lab: Intertek  Report #: GZHT91071781  Date: 11/15/2021  Description: 100% Polyester Knit Fleece  Atterial 2 Identification  Material Type: X Knitted
Test Lab: Intertek  Report #: GZHT91071781  Material Content (such as Polyester, Modacrylic, and others): 100% Polyester  Weight: 8.25 oz Color: Fl. Orange-Red  Description: 100% Polyester Knit Fleece  aterial 2 Identification  Test Lab:  Material Type:   Material Content (such as Polyester, Modacrylic, and others):  Material Content (such as Polyester, Modacrylic, and others):  Weight: Color:
Date: 11/15/2021  Description: 100% Polyester Knit Fleece    Material 2 Identification
Description: 100% Polyester Knit Fleece  aterial 2 Identification  Test Lab:  Report #:  Material Type:   Knitted   Woven   Other:
Test Lab:    Material Type:   Knitted   Woven   Other:
Test Lab:  Material Type: ☐ Knitted ☐ Woven ☐ Other: ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐
Test Lab:  Report #:  Material Content (such as Polyester, Modacrylic, and others):  Weight: Color:
Weight: Color:
Date: Weight: Color:
Description:
aterial 3 Identification
Test Lab:  Material Type: □Knitted □ Woven □ Other:
Report #: Material Content (such as Polyester, Modacrylic, and others):
Date: Weight: Color:
Description:

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

2.	VISIBLE RETROREFLECTIVE MATE	ERIAL
• /	Amount of visible retroreflective material	(smallest size offered) 0.20m² (310 in.²)
Ple	ease list each type of material that contr	ibutes towards VISIBLE RETROREFLECTIVE MATERIAL listed above
Ma	aterial 1 Identification	
	Test Lab: Intertek	
	Report #: GZHT91069017	
	Date: 11/11/2021	Style #: VB211A
	Description: 50mm wide sew on silver r	eflective trim
Ma	aterial 2 Identification	
	Test Lab:	
	Report #:	
	Date:	Style #:
	Description:	
*U	se separate sheet for additional materia	Is
3.	OVERALL LUMINANCE  Check here if test report for options	al Overall Luminance testing is attached.
Th	e undersigned hereby warrants that he/	she is authorized to legally bind the company identified above.
Się	gned: <u>Mghan Bows</u> l	Title: Product Manager
Dr	<sub>int Name</sub> . Meghan Bowser	Date: 8/17/22



### Certificate of Test

Issued To: TRC NANJING REPRESENTATIVE Our Reference No.: GZHT9107178102

**OFFICE** 

ROOM 1809,#3 BUILDING Certificate Issue Date: Nov 15, 2021

DEYING INT'L PLAZA,#222 CHANGHONG **ROAD** 

YUHUATAI DISTRICT, NANJING 210012

Attn: ANNE WANG

One (1) piece of submitted sample said to be Hi-Vis Orange Polyester Fleece, 280gsm, Description:

#TY21092203.

We Hereby Declare That The Sample Described Above Has Been Tested By Intertek Testing Services Shenzhen Ltd. Guangzhou Branch And Meets The Requirements Of The Following Selected Tests Of ANSI/ISEA 107-2020.

Color Performance Of Background And Combined-performance Materials Colorfastness To Crocking Of Background Material Color Fastness To Perspiration Of Background Material Colorfastness To Water Of Background Material Color Fastness To Laundry Of Background Material Dimension Change Of Background Material Bursting Strength

The test results are given in our report No.: GZHT91071781 Dated: Nov 1 Dated: Nov 15, 2021

### Note:

This Declaration Applies To The Particular Sample Tested And To The Specific Tests Carried Out As Dated And Detailed In The Report(S) Referenced Above.

This Certificate Is Valid Only For The Applicant's Selected Test Items And Must Not Be Used Without

2

The Attached Test Report.

This Certificate Must Not Be Confused Neither With The EU Type Examination Certificate Released 3 By Nofified Body Nor With The Conformalty Declaration Released By Manufacturer.

Authorized By:

For Intertek Testing Services Shenzhen Ltd.

Guangzhou Branch

Guiliang Dong Senior Lab Manager





Date:

Number: GZHT91071781

Nov 15, 2021

Applicant: TRC NANJING REPRESENTATIVE OFFICE

ROOM 1809, #3 BUILDING,

DEYING INT'L PLAZA, #222 CHANGHONG ROAD,

YUHUATAI DISTRICT, NANJING 210012

Attn: ANNE WANG

Sample Description:

One (1) piece of submitted sample said to be Hi-Vis Orange Polyester Fleece, 280gsm, #TY21092203.

Standard ANSI/ISEA 107-2020

Buyer **Tingley Rubber Corporation** 

Ref. No. Hi-Vis OR Polyester Fleece, 280gsm, #TY21092203

Goods Exported to U.S.A

Date Received/Date Test Started Oct. 19, 2021 Nov. 12, 2021/--Date Final Information Confirmed/

Date Payment Received:

Test Result Please Refer To Attached Page(S).

Should you have any query on this report, you may contact at <a href="mailto:qzfootwear@intertek.com">qzfootwear@intertek.com</a>

Authorized By:

For Intertek Testing Services Shenzhen Ltd.

Guangzhou Branch

Guiliang Dong Senior Lab Manager

Page 1 Of 7

MR / lydiayang



**TEST REPORT** 





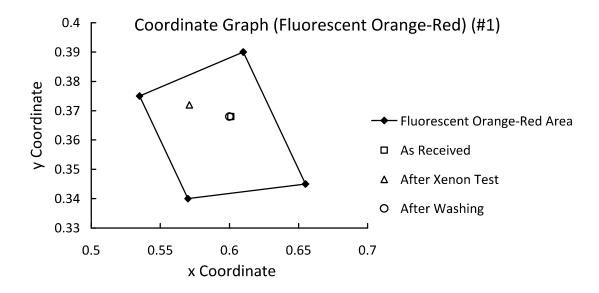
Number: GZHT91071781

Tests Conducted (As Requested By The Applicant)

Color Performance Of Background And Combined-performance Materials (ANSI/ISEA 107-2020, 8.1.1 (Prior To Exposure Tests) & 8.1.2 (After Xenon Test) & ASTM E1164-17)

Sample	Color	Pre-condition	Chrom	Chromaticity Coordinates		Total Luminance Factor	Requirement	Pass/Fail
			ε	X	У	Y (%)		
-	Fluorescent	As	0°	0.6009	0.3681	49	-	-
	Orange <del>-</del> Red	Received (#1)	90°	0.6013	0.3680	49	-	-
			Mean	0.601	0.368	49	*	Pass
		After Xenon	0°	0.5714	0.3715	52	-	-
		Test (# & #1)	90°	0.5704	0.3714	52	-	-
			Mean	0.571	0.372	52	*	Pass
Note:	1.00.1 0.0.1 0.0.2							

Sample	Color	Pre-Condition	Chrom	naticity Coo	rdinates	Total Luminance Factor	Applicant's Requirement	Pass/Fail
			ε	X	У	Y (%)		
-	Fluorescent	After Washing	0°	0.6002	0.3682	49	-	-
	Orange <del>-</del> Red	(#1 & #2)	90°	0.5999	0.3684	50	-	-
			Mean	0.600	0.368	49	*	Pass
Note:	Note: The Specimen Is Backed By A Black Underlay With A Reflectance Of Less Than 0.04.							



/ lydiayang

Page 2 Of 7





Color Performance Of Background And Combined-performance Materials (Cont)

### Remark: \* =

Color	Chromaticity	Coordinates	Minimum Total Luminance Factor	
	X	у	Y (%)	
	0.610	0.390		
Fluorescent	0.535	0.375	40	
Orange-Red	0.570	0.340	<del>1</del> 0	
	0.655	0.345		
NOTE The Coordinate Of Sample Should Be Inside The Area Specified By The Table Above.				

- Xenon Test Based On AATCC 16.3-2014, Colorfastness To Light Xenon Arc. Expose The Materials To 40 AATCC Fading Units (170 KJ/m<sup>2</sup>@420nm).
- #1= Single Layer
- ISO 6330:2012, Wash Condition: #2 =

Washing Standard:	ISO 6330:2012
Machine:	Type A
Reagent:	Reference Detergent 3
Washing Procedure:	4 N
Bleaching Procedure:	-
Drying Procedure:	-
Ironing Procedure:	-
Professional Textile Care Procedure:	-
Number Of Cycles:	25





Total Quality. Assured. **TEST REPORT** 

Tests Conducted (As Requested By The Applicant)

2 Colorfastness To Crocking Of Background Material (ANSI/ISEA 107-2020, 8.2.1 & AATCC 8-2016)

Preconditioning:

Temperature: (20±2)°C Relative Humidity:  $(65\pm5)\%$ Period: 24 Hours

Sample	Test Condition	Results	<u>Requirement</u>	Pass / Fail
-	Dry	Grade 4.5	Min. Grade 3.0	Pass
	Wet	Grade 4.5	Min. Grade 3.0	Pass

3 Colorfastness To Perspiration Of Background Material (ANSI/ISEA 107-2020, 8.2.2 & AATCC 15-2013)

Test Condition:

Load: 4.54 kg  $(38 \pm 1)$  °C Oven temperature:  $6 h \pm 5 min$ Test Period:

Sample			Requirement	Pass / Fail	
-	Color Change:		Grade 4.5	Min. Grade 4.0	Pass
	Color Stain:	-Acetate	Grade 4.5		
		-Cotton	Grade 4.5		
		-Nylon	Grade 4.0		
		-Polyester	Grade 4.5	Min. Grade 3.0	Pass
		-Acrylic	Grade 4.5		
		-Wool	Grade 4.5		





**TEST REPORT** 

Tests Conducted (As Requested By The Applicant)

Colorfastness To Water Of Background Material (ANSI/ISEA 107-2020, 8.2.3 & AATCC 107-2013)

Test Condition:

Pressure: 4.5 kg  $(38 \pm 1) \,^{\circ}\text{C}$ Oven Temperature: Test Period: 18 h

Sample			Requirement	Pass / Fail	
-	Color Change:		Grade 4.5	Min. Grade 3.0	Pass
	Staining	-Acetate	Grade 4.5		
		-Cotton	Grade 4.5		
		-Nylon	Grade 4.0		
		-Polyester	Grade 4.5	Min. Grade 3.0	Pass
		-Acrylic	Grade 4.5		
		-Wool	Grade 4.5		

5 Color Fastness To Laundry Of Background Material (ANSI/ISEA 107-2020, 8.2.3)

Test Condition:

Test Method: AATCC 61-2013-2A, Modified To Use 105°F (Domestic Laundry)

Sample			<u>Requirement</u>	Pass / Fail	
	Color Change:		Grade 4.5	Min. Grade 4.5	Pass
	Color Stain:	-Acetate	Grade 3.0		
		-Cotton	Grade 4.0		
		-Nylon	Grade 3.0		
		-Polyester	Grade 4.0	Min. Grade 3.0	Pass
		-Acrylic	Grade 4.5		
		-Wool	Grade 4.0		

Remark: This Test Was Conducted At Room 801/901, No. 8, East BaoYing Road, Huangpu District, Guangzhou.

/ lydiayang

Page 5 Of 7





**TEST REPORT** 

Tests Conducted (As Requested By The Applicant)

Dimension Change Of Background Material (Home Laundering) (ANSI/ISEA 107-2020, 8.3 & ASTM D1776-16) 6

Test Condition:

Standard Code: AATCC 135-2012 (3)(III)(A)(iii)

Cleaning Cycles:

Sample		Results	Requirement	Pass / Fail
	Length	-1.6%	±7%	Pass
	Width	-0.8%	±5%	Pass

Remark: \* =

Material Type	Knit Fabrics And All Other Materials
Length	Not Exceed $\pm$ 7%
Width	Not Exceed $\pm 5\%$

Remark: This Test Was Conducted At Room 801/901, No. 8, East BaoYing Road, Huangpu District, Guangzhou.

7 Bursting Strength Of Knitted Materials And Other Nonwoven Constructions (ANSI/ISEA 107-2020, 8.4.1 & ASTM D6797-07(2015))

Preconditioning:

Temperature: (20±2)°C Relative Humidity:  $(65\pm5)\%$ Period: 24 Hours

Sample	Specimen	Results	<u>Requirement</u>	Pass/Fail
	1	717.5 N	Min. 178 N	Pass
	2	739.5 N	Min. 178 N	Pass
	3	731.0 N	Min. 178 N	Pass
	4	758.5 N	Min. 178 N	Pass
	5	723.5 N	Min. 178 N	Pass
	Average	734.0 N	Min. 178 N	Pass

Remark: This Test Was Conducted At Room 801/901, No. 8, East BaoYing Road, Huangpu District, Guangzhou.

/ lydiayang







End Of Report

This report is made solely on the basis of your instructions and/or information and materials supplied by you. It is not intended to be a recommendation for any particular course of action. Intertek does not accept a duty of care or any other responsibility to any person other than the Client in respect of this report and only accepts liability to the Client insofar as is expressly contained in the terms and conditions governing Intertek's provision of services to you. Intertek makes no warranties or representations either express or implied with respect to this report save as provided for in those terms and conditions. We have aimed to conduct the Review on a diligent and careful basis and we do not accept any liability to you for any loss arising out of or in connection with this report, in contract, tort, by statute or otherwise, except in the event of our gross negligence or wilful misconduct. No copy of the test report(except for full text copy) shall be made without the written approval by Intertek.



### **Certificate of Test**

TRC NANJING REPRESENTATIVE OFFICE Issued To: Our Reference No.: GZHT9106901702

> ROOM 1809,#3 BUILDING, Certificate Issue Date: Nov 11, 2021

DEYING INT'L PLAZA,#222 CHANGHONG

ROAD.

YUHUATAI DISTRICT, NANJING 210012

Attn: ANNE WANG

Description: One (1) piece of submitted sample said to be Silver VB211A WP Reflective Tape.

We Hereby Declare That The Sample Described Above Has Been Tested By Intertek Testing Services Shenzhen Ltd. Guangzhou Branch And Meets The Requirements Of The Following Selected Tests Of ANSI/ISEA 107-2020.

Retroreflective Performance Prior to Test Exposure Retroreflection After Abrasion Retroreflection After Flexing Retroreflection After Folding At Cold Temperatures Retroreflection After Temperature Variation Retroreflection After Washing Retroreflection (Wet Performance)

The test results are given in our report

No.: GZHT91069017 Dated: Nov 11, 2021

#### Note:

- This Declaration Applies To The Particular Sample Tested And To The Specific Tests Carried Out As Dated And Detailed In The Report(S) Referenced Above.
- This Certificate Is Valid Only For The Applicant's Selected Test Items And Must Not Be Used Without 2 The Attached Test Report.
- This Certificate Must Not Be Confused Neither With The EU Type Examination Certificate Released By Nofified Body Nor With The Conformalty Declaration Released By Manufacturer.

Authorized By:

For Intertek Testing Services Shenzhen Ltd. Guangzhou Branch

Guiliang Dong Senior Lab Manager





Date:

Number: GZHT91069017

Nov 11, 2021

中国认可 国际互认

检测 TESTING **CNAS L0220** 

Applicant: TRC NANJING REPRESENTATIVE OFFICE

ROOM 1809, #3 BUILDING,

DEYING INT'L PLAZA, #222 CHANGHONG ROAD,

YUHUATAI DISTRICT, NANJING 210012

Attn: ANNE WANG

Sample Description:

One (1) piece of submitted sample said to be Silver VB211A WP Reflective Tape.

Standard ANSI/ISEA 107-2020

Buyer **Tingley Rubber Corporation** 

VB211A WP Reflective Tape, #20210820-3 Ref.

Goods Exported to U.S.A.

Date Received/Date Test Started Oct. 09, 2021 Nov. 11, 2021/--Date Final Information Confirmed/

Date Payment Received:

Test Result Please Refer To Attached Page(S).

Should you have any query on this report, you may contact at qzfootwear@intertek.com

Authorized By:

For Intertek Testing Services Shenzhen Ltd.

Guangzhou Branch

Guiliang Dong Senior Lab Manager

Page 1 Of 6

wx / lydiayang





1 Retroreflective Performance Prior to Test Exposure (ANSI/ISEA 107-2020, 9.1 & 10.3 & ASTM E809-08(2013))

Sample	Observation Angle	Entrance Angle $\beta_1$ ( $\beta_2$ =0)	Coeffici Retroref cd/(lx	Tection	<u>Requirement</u>	Pass/Fail
-	0.20° [12′]	5°	504	500	Min. 330/248 cd/( $lx \cdot m^2$ ) (*)	Pass
		20°	475	468	Min. 290/218 cd/(lx·m²) (*)	Pass
		30°	398	391	Min. 180/135 cd/( $lx \cdot m^2$ ) (*)	Pass
		40°	232	216	Min. 65/47 cd/( $lx \cdot m^2$ ) (*)	Pass
	0.33° [20′]	5°	288	286	Min. 250/188 cd/(lx·m²) (*)	Pass
		20°	274	267	Min. 200/150 cd/(lx·m²) (*)	Pass
		30°	246	241	Min. 170/128 cd/(lx·m²) (*)	Pass
		40°	171	168	Min. 60/45 cd/(lx·m²) (*)	Pass
	1.0°	5°	82.5	80.7	Min. 25/18.8 cd/(lx·m²) (*)	Pass
		20°	83.9	83.6	Min. 15/11.3 cd/(lx·m <sup>2</sup> ) (*)	Pass
		30°	79.9	79.5	Min. 12/9 cd/(lx·m²) (*)	Pass
		40°	49.7	45.2	Min. 10/7.5 cd/(lx·m²) (*)	Pass
	1.5° [1° 30′]	5°	19.8	18.5	Min. 10/7.5 cd/(lx·m²) (*)	Pass
		20°	21.5	21.0	Min. 7/5.25 cd/(lx·m²) (*)	Pass
		30°	24.7	24.4	Min. 5/3.75 cd/(lx·m <sup>2</sup> ) (*)	Pass
		40°	22.7	22.4	Min. 4/3 cd/(lx·m²) (*)	Pass

<sup>\*=</sup> Retroreflective Material Shall Comply With The Minimum Requirements For The Coefficient Of Retroreflection At The One Of The Two Rotation Angles, And Shall Be Not Less Than 75% Of The Values At The Other Rotation Angle.

Note: Take Measurements At  $\epsilon 1=0^{\circ}$  And  $\epsilon 2=90^{\circ}$  . Maximum Value Is Recorded On Left Side Of The Result Column And The Other Value On Right Side Of Test Result Column.





2 Retroreflection After Abrasion (ANSI/ISEA 107-2020, 9.2 & 10.4.1)

Test Exposure	Test Method
Abrasion	ISO 12947-2:2016, Pressure: 9 kPa, 5,000 Cycles

Sample	x-Direction (Horizontal: $\epsilon$ =0 $^{\circ}$ )				
	Observation Angle	Entrance Angle $\beta_1$ $(\beta_2 = 0^\circ)$	Coefficient Of Retroreflection	<u>Requirement</u>	Pass / Fail
-	0.20° [12′]	5°	471 cd/(lx·m <sup>2</sup> )	Min. 100 cd/(lx·m²)	Pass

Sample	y-Direction (Vertical: $\epsilon$ =90 $^{\circ}$ )				
	Observation Angle	Entrance Angle $\beta_1$ $(\beta_2 = 0^\circ)$	Coefficient Of Retroreflection	<u>Requirement</u>	Pass / Fail
-	0.20° [12′]	5°	470 cd/(lx·m <sup>2</sup> )	Min. 75 cd/(lx·m <sup>2</sup> )	Pass

Retroreflection After Flexing (ANSI/ISEA 107-2020, 9.2 & 10.4.2)

Test Exposure	Test Method
Flexing	ISO 7854:1995, Method A, 7,500 Cycles

Sample	x-Direction (Horizontal: $\epsilon$ =0 $^{\circ}$ )				
	Observation Angle	Entrance Angle $\beta_1$ $(\beta_2 = 0^\circ)$	Coefficient Of Retroreflection	<u>Requirement</u>	Pass / Fail
-	0.20° [12′]	5°	474 cd/(lx·m <sup>2</sup> )	Min. 100 cd/(lx·m <sup>2</sup> )	Pass

Sample		y-Direction (Vertical: ε=90°)			
	Observation Angle	Entrance Angle $\beta_1$ $(\beta_2 = 0^\circ)$	Coefficient Of Retroreflection	<u>Requirement</u>	Pass / Fail
_	0.20° [12′]	5°	474 cd/(lx·m²)	Min. 75 cd/(lx·m <sup>2</sup> )	Pass

/ lydiayang





4 Retroreflection After Folding At Cold Temperatures (ANSI/ISEA 107-2020, 9.2 & 10.4.3)

Test Exposure	Test Method
Folding At Cold Temperatures	ISO 4675:2017, Exposure At $(-20\pm1)^{\circ}$ C For 4 Hours

Sample	x-Direction (Horizontal: $\epsilon$ =0 $^{\circ}$ )				
	Observation Angle	Entrance Angle $\beta_1$ $(\beta_2 = 0^\circ)$	Coefficient Of Retroreflection	<u>Requirement</u>	Pass / Fail
-	0.20° [12′]	5°	500 cd/(lx·m <sup>2</sup> )	Min. 100 cd/(lx·m <sup>2</sup> )	Pass

Sample		y-Direction (Vertical: $\epsilon$ =90 $^{\circ}$ )			
	Observation	Entrance Angle β <sub>1</sub>	Coefficient Of	Requirement	Pass / Fail
	Angle	$(\beta_2 = 0^{\circ})$	Retroreflection	<u>Requirement</u>	1 033 / 1 011
-	0.20° [12′]	5°	496 cd/(lx·m <sup>2</sup> )	Min. 75 cd/( $lx \cdot m^2$ )	Pass

5 Retroreflection After Temperature Variation (ANSI/ISEA 107-2020, 9.2 & 10.4.4)

Test Exposure	Test Method
	a) For 12 H At 50±2℃; Immediately Followed By
Temperature Variation	b) 20 H At −30±2℃; Immediately Followed By
	c) For At Least 2 H At 20±2℃ And 65±5 % Relative Humidity

Sample	x-Direction (Horizontal: $\epsilon$ =0 $^{\circ}$ )				
	Observation Angle	Entrance Angle $\beta_1$ $(\beta_2 = 0^\circ)$	Coefficient Of Retroreflection	<u>Requirement</u>	Pass / Fail
-	0.20° [12′]	5°	503 cd/(lx·m <sup>2</sup> )	Min. 100 cd/(lx·m²)	Pass

Sample	y-Direction (Vertical: ε=90°)					
	Observation Angle	Entrance Angle $\beta_1$ $(\beta_2 = 0^\circ)$	Coefficient Of Retroreflection	<u>Requirement</u>	Pass / Fail	
-	0.20° [12′]	5°	499 cd/(lx·m²)	Min. 75 cd/(lx·m <sup>2</sup> )	Pass	

/ lydiayang





6 Retroreflection After Washing (ANSI/ISEA 107-2020, 9.2 & 10.4.5.2 (Washing))

### Wash Condition:

ISO 6330:2012
Type A
Reference Detergent 3
6N
-
After Each Wash Cycle Dried The Samples At 50±5℃.
-
-
25

Sample	x-Direction (Horizontal: $\epsilon$ =0 $^{\circ}$ )					
	Observation Angle	Entrance Angle $\beta_1$ $(\beta_2 = 0^\circ)$	Coefficient Of Retroreflection	<u>Requirement</u>	Pass / Fail	
_	0.20° [12′]	5°	278 cd/(lx·m <sup>2</sup> )	Min. 100 cd/(lx·m <sup>2</sup> )	Pass	

Sample	y-Direction (Vertical: ε=90°)					
	Observation Angle	Entrance Angle $\beta_1$ $(\beta_2 = 0^\circ)$	Coefficient Of Retroreflection	<u>Requirement</u>	Pass / Fail	
-	0.20° [12′]	5°	270 cd/(lx·m <sup>2</sup> )	Min. 75 cd/(lx·m <sup>2</sup> )	Pass	

#### 7 Retroreflection (Wet Performance) (ANSI/ISEA 107-2020, 9.2 & Appendix B)

Test Exposure	Test Method	
Retroreflective Wet Performance	ANSI/ISEA 107-2020, Appendix B	

Sample	x-Direction (Horizontal: $\epsilon$ =0 $^{\circ}$ )					
	Observation Angle	Entrance Angle $\beta_1$ $(\beta_2 = 0^\circ)$	Coefficient Of Retroreflection	<u>Requirement</u>	Pass / Fail	
-	0.20° [12′]	5°	358 cd/(lx·m <sup>2</sup> )	Min. 100 cd/(lx·m <sup>2</sup> )	Pass	

Sample	y-Direction (Vertical: ε=90°)					
	Observation Angle	Entrance Angle $\beta_1$ $(\beta_2 = 0^\circ)$	Coefficient Of Retroreflection	<u>Requirement</u>	Pass / Fail	
-	0.20° [12′]	5°	343 cd/(lx·m <sup>2</sup> )	Min. 75 cd/(lx·m <sup>2</sup> )	Pass	

/ lydiayang

Page 5 Of 6







This report is made solely on the basis of your instructions and/or information and materials supplied by you. It is not intended to be a recommendation for any particular course of action. Intertek does not accept a duty of care or any other responsibility to any person other than the Client in respect of this report and only accepts liability to the Client insofar as is expressly contained in the terms and conditions governing Intertek's provision of services to you. Intertek makes no warranties or representations either express or implied with respect to this report save as provided for in those terms and conditions. We have aimed to conduct the Review on a diligent and careful basis and we do not accept any liability to you for any loss arising out of or in connection with this report, in contract, tort, by statute or otherwise, except in the event of our gross negligence or wilful misconduct. No copy of the test report(except for full text copy) shall be made without the written approval by Intertek.