

E3. Declaration of Conformity

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

Certificate No. V71835C-2020
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 2 Solid/Mesh, X-Back Zipper Closure Vest, Fluorescent Red Model Number: V71835C
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 <u>2</u> , Type <u>R</u> ; 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): >0.50m² (775 in.²)

Please list each material that contributes towards the amount **VISIBLE BACKGROUND MATERIAL** listed above. Use separate sheet for addition materials.

Material 1 Identification

Test Lab: Intertek	Material Type: <input checked="" type="checkbox"/> Knitted <input type="checkbox"/> Woven <input type="checkbox"/> Other: _____
Report #: GZHT91062000	Material Content (such as Polyester, Modacrylic, and others): 100% Polyester
Date: 09/15/2021	Weight: 3.05 oz Color: Fl. Red
Description: 100% Polyester Mesh	

Material 2 Identification

Test Lab: Intertek	Material Type: <input checked="" type="checkbox"/> Knitted <input type="checkbox"/> Woven <input type="checkbox"/> Other: _____
Report #: GZHT91049997	Material Content (such as Polyester, Modacrylic, and others): 100% Polyester
Date: 08/13/2021	Weight: 3.50 oz Color: Fl. Red
Description: 100% Polyester Solid	

Material 3 Identification

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: Color:
Description:	

Declaration of Conformity (page 2 of 2)**2. VISIBLE RETROREFLECTIVE MATERIAL**

- Amount of visible retroreflective material (smallest size offered) >0.13m² (201 in.²)

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

Material 1 Identification

Test Lab: Intertek	
Report #: GZHT91074060	
Date: 12/09/2021	Style #: 4006
Description: 50mm wide heat seal segmented silver reflective trim	

Material 2 Identification

Test Lab:	
Report #:	
Date:	Style #:
Description:	

**Use separate sheet for additional materials*

3. OVERALL LUMINANCE

Check here if test report for optional Overall Luminance testing is attached.

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

Signed: Meghan Bowser Title: Product Manager

Print Name: Meghan Bowser Date: 8/17/22

Certificate of Test

Issued To: TRC NANJING REPRESENTATIVE OFFICE
ROOM 1809,#3 BUILDING,
DEYING INT'L PLAZA,#222 CHANGHONG ROAD,
YUHUATAI DISTRICT,NANJING 210012

Our Reference No.: GZHT9106200002

Certificate Issue Date: Sep 15, 2021

Attn: ANNE WANG

Description: One (1) piece of submitted sample said to be Knitted Vest Fabric (100% Polyester Mesh Knit, 120gsm in High Visibility Red), #YD20210820.

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.: GZHT91062000 Dated: Sep 15, 2021

Note:

- 1 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.
- 2 This Certificate Is Valid Only For The Applicant's Selected Test Items And Must Not Be Used Without The Attached Test Report.
- 3 This Certificate Must Not Be Confused Neither With The EU Type Examination Certificate Released By Nofified Body Nor With The Conformaity Declaration Released By Manufacturer.

Authorized By:
For Intertek Testing Services Shenzhen Ltd.
Guangzhou Branch



Guiliang Dong
Senior Lab Manager





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TEST REPORT



中国认可
国际互认
检测
TESTING
CNAS L0220

Number: GZHT91062000

Applicant: TRC NANJING REPRESENTATIVE OFFICE
ROOM 1809,#3 BUILDING,
DEYING INT'L PLAZA,#222 CHANGHONG ROAD,
YUHUATAI DISTRICT,NANJING 210012

Date: Sep 15, 2021

Attn: ANNE WANG

Sample Description:

One (1) piece of submitted sample said to be Knitted Vest Fabric (100% Polyester Mesh Knit, 120gsm in High Visibility Red), #YD20210820.

Standard	:	ANSI/ISEA 107-2020
Colour	:	Red
Buyer	:	Tingley Rubber Corporation
Goods Exported to	:	U.S.A.
Date Received/Date Test Started	:	Aug. 31, 2021
Date Final Information Confirmed/	:	Sep. 15, 2021/--
Date Payment Received:	:	

Test Result Please Refer To Attached Page(S).

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

Authorized By:
For Intertek Testing Services Shenzhen Ltd.
Guangzhou Branch

Guiliang Dong
Senior Lab Manager

MI / lydiayang



Intertek Testing Services Shenzhen Ltd. Guangzhou Branch
 深圳天祥质量技术服务有限公司广州分公司
 Room 02, 1-8/F. & Room 01, E101/E201/E301/E401/E501/E601/E701/E801,
 No.7-2, Caipin Road, Guangzhou Science City, GETDD, Guangzhou, Guangdong, China
 广州经济技术开发区科学城彩频路7号之二第1-8层 02房、01房 101、
 E201、E301、E401、E501、E601、E701、E801
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- 1 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	Chromaticity Coordinates			Total Luminance Factor	Requirement	Pass/Fail
			ϵ	x	y	Y (%)		
-	Fluorescent Red	As Received (#1)	0°	0.6151	0.3313	31	-	-
			90°	0.6149	0.3310	31	-	-
			Mean	0.615	0.331	31	*	Pass
		After Xenon Test (# & #1 & #3)	0°	0.5799	0.3477	41	-	-
			90°	0.5796	0.3475	41	-	-
			Mean	0.580	0.348	41	*	Pass

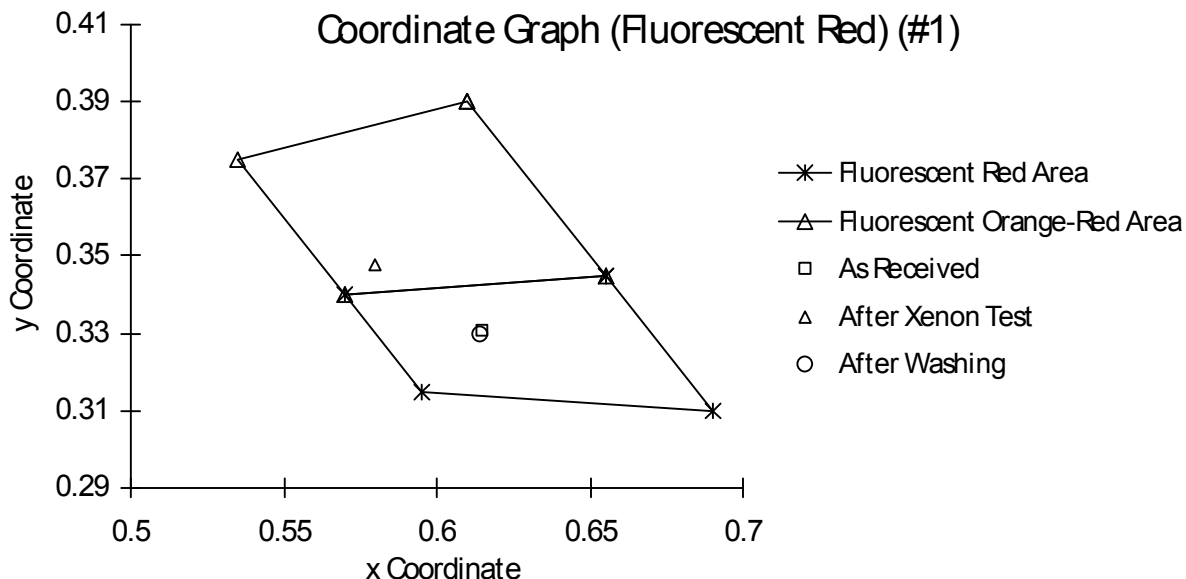
Note: The Specimen Is Backed By A Black Underlay With A Reflectance Of Less Than 0.04.

Sample	Color	Pre-Condition	Chromaticity Coordinates			Total Luminance Factor	Applicant's Requirement	Pass/Fail
			ϵ	x	y	Y (%)		
-	Fluorescent Red	After Washing (#1 & #2)	0°	0.6134	0.3302	31	-	-
			90°	0.6145	0.3304	31	-	-
			Mean	0.614	0.330	31	*	Pass

Note: The Specimen Is Backed By A Black Underlay With A Reflectance Of Less Than 0.04.



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



Remark: * =

Color	Chromaticity Coordinates		Minimum Total Luminance Factor Y (%)
	x	y	
Fluorescent Orange-Red	0.610	0.390	40
	0.535	0.375	
	0.570	0.340	
	0.655	0.345	
Fluorescent Red	0.655	0.345	25
	0.570	0.340	
	0.595	0.315	
	0.690	0.310	

NOTE The Coordinate Of Sample Should Be Inside The Area Specified By The Table Above.





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

= Xenon Test Based On AATCC 16.3-2014, Colorfastness To Light Xenon Arc. Expose The Materials To 40 AATCC Fading Units (170 KJ/m²@420nm).

#1= Two Layers Of The Same Material

#2 = ISO 6330:2012, Wash Condition:

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

#3 = A Fluorescent Red Is Acceptable If After Exposure To Xenon Light Its Colour-Coordinates Are Within The Tolerated Area For Orange-Red And If It's Luminance Factor Is Higher Than 0.4. And The Colour After Exposure Changed From Fluorescent Red To Fluorescent Orange-Red. This Shall Be Mentioned In The Instruction For Use.

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±5)%

Period: 24 Hours

Sample	Test Condition	Results	Requirement	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
Oven temperature: (38 ± 1) °C
Test Period: 6 h ± 5 min

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

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

Test Condition:

Pressure: 4.5 kg
Oven Temperature: (38 ± 1) °C
Test Period: 18 h

Sample	Results			Requirement	Pass / Fail
-	Color Change:		Grade 4.5	Min. Grade 3.0	Pass
	Staining	-Acetate	Grade 4.5	Min. Grade 3.0	Pass
		-Cotton	Grade 4.5		
		-Nylon	Grade 4.5		
		-Polyester	Grade 4.5		
		-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	Results		Requirement	Pass / Fail
	Color Change:	Grade 4.5	Min. Grade 4.5	Pass
	Color Stain:			
	-Acetate	Grade 3.5	Min. Grade 3.0	Pass
	-Cotton	Grade 4.0		
	-Nylon	Grade 3.5		
	-Polyester	Grade 4.0		
	-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.

This Test In The Report Is Not Included In The CNAS Accreditation Schedule For Our Laboratory.

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

Test Condition:

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

Cleaning Cycles: 5

Sample	Results		Requirement	Pass / Fail
	Length	-2.0%	*	Pass
	Width	-2.8%	*	Pass

Remark: * =

Material Type	Knit Fabrics And All Other Materials
Length	Not Exceed ± 7%
Width	Not Exceed ± 5%

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

This Test In The Report Is Not Included In The CNAS Accreditation Schedule For Our Laboratory.





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 ± 5) %

Period: 24 Hours

Sample	Specimen	Results	Requirement	Pass/Fail
	1	497.0 N	Min. 178 N	Pass
	2	513.5 N	Min. 178 N	Pass
	3	490.5 N	Min. 178 N	Pass
	4	510.5 N	Min. 178 N	Pass
	5	487.0 N	Min. 178 N	Pass
	Average	499.5 N	Min. 178 N	Pass

Remark: N = Newton

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

This Test In The Report Is Not Included In The CNAS Accreditation Schedule For Our Laboratory.



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TEST REPORT

Tests Conducted (As Requested By The Applicant)



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检测
TESTING
CNAS L0220

Number: GZHT91062000



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.

/ lydiayang

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Intertek Testing Services Shenzhen Ltd. Guangzhou Branch

深圳天祥质量技术服务有限公司广州分公司

Room 02, 1-8/F. & Room 01, E101/E201/E301/E401/E501/E601/E701/E801,
No.7-2, Caipin Road, Guangzhou Science City, GETDD, Guangzhou, Guangdong, China

广州经济技术开发区科学城彩频路7号之二第1-8层 02房、01房 101、
E201、E301、E401、E501、E601、E701、E801

Tel: +86 208213 9001 Fax: +86 20 82089909 Postcode: 510663



Certificate of Test

Issued To: TRC NANJING REPRESENTATIVE
OFFICE
ROOM 1809,#3 BUILDING,
DEYING INT'L PLAZA,#222 CHANGHONG
ROAD,
YUHUATAI DISTRICT,NANJING 210012

Our Reference No.: GZHT9104999702

Certificate Issue Date: Aug 13, 2021

Attn: ANNE WANG

Description: One (1) piece of submitted sample said to be Knitted Vest Fabric (100% Polyester Solid Knit, 130gsm in High Visibility Red), #SF20210531T.

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.: GZHT91049997 Dated: Aug 13, 2021

Note:

- 1 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.
- 2 This Certificate Is Valid Only For The Applicant's Selected Test Items And Must Not Be Used Without The Attached Test Report.
- 3 This Certificate Must Not Be Confused Neither With The EU Type Examination Certificate Released By Noffied Body Nor With The Conformaity Declaration Released By Manufacturer.

Authorized By:
For Intertek Testing Services Shenzhen Ltd.
Guangzhou Branch



Guiliang Dong
Senior Lab Manager





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TEST REPORT



中国认可
国际互认
检测
TESTING
CNAS L0220

Number: GZHT91049997

Applicant: TRC NANJING REPRESENTATIVE OFFICE
ROOM 1809,#3 BUILDING,
DEYING INT'L PLAZA,#222 CHANGHONG ROAD,
YUHUATAI DISTRICT,NANJING 210012
Attn: ANNE WANG

Date: Aug 13, 2021

Sample Description:

One (1) piece of submitted sample said to be Knitted Vest Fabric (100% Polyester Solid Knit, 130gsm in High Visibility Red), #SF20210531T.

Standard : ANSI/ISEA 107-2020
Colour : Red
Buyer : Tingley Rubber Corporation
Goods Exported to : U.S.A.
Date Received/Date Test Started: Jun 30, 2021
Date Final Information Confirmed/ --/Aug 13, 2021
Date Payment Received:

Test Result Please Refer To Attached Page(S).

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

Authorized By:
For Intertek Testing Services Shenzhen Ltd.
Guangzhou Branch

Guiliang Dong
Senior Lab Manager

/ lydiayang



Intertek Testing Services Shenzhen Ltd. Guangzhou Branch
深圳天祥质量技术服务有限公司广州分公司
Room 02, 1-8/F. & Room 01, E101/E201/E301/E401/E501/E601/E701/E801,
No.7-2, Caipin Road, Guangzhou Science City, GETDD, Guangzhou, Guangdong, China
广州经济技术开发区科学城彩频路7号之二第十一-八层 02房、01房 101、
E201、E301、E401、E501、E601、E701、E801
Tel: +86 208213 9001 Fax: +86 20 82089909 Postcode: 510663



- 1 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	Chromaticity Coordinates			Total Luminance Factor	Requirement	Pass/Fail
			ϵ	x	y	Y (%)		
-	Fluorescent Red	As Received (#1)	0°	0.6218	0.3335	32	-	-
			90°	0.6216	0.3334	32	-	-
			Mean	0.622	0.333	32	*	Pass
		After Xenon Test (# & #1 & #3)	0°	0.5840	0.3505	42	-	-
			90°	0.5850	0.3505	42	-	-
			Mean	0.584	0.350	42	*	Pass

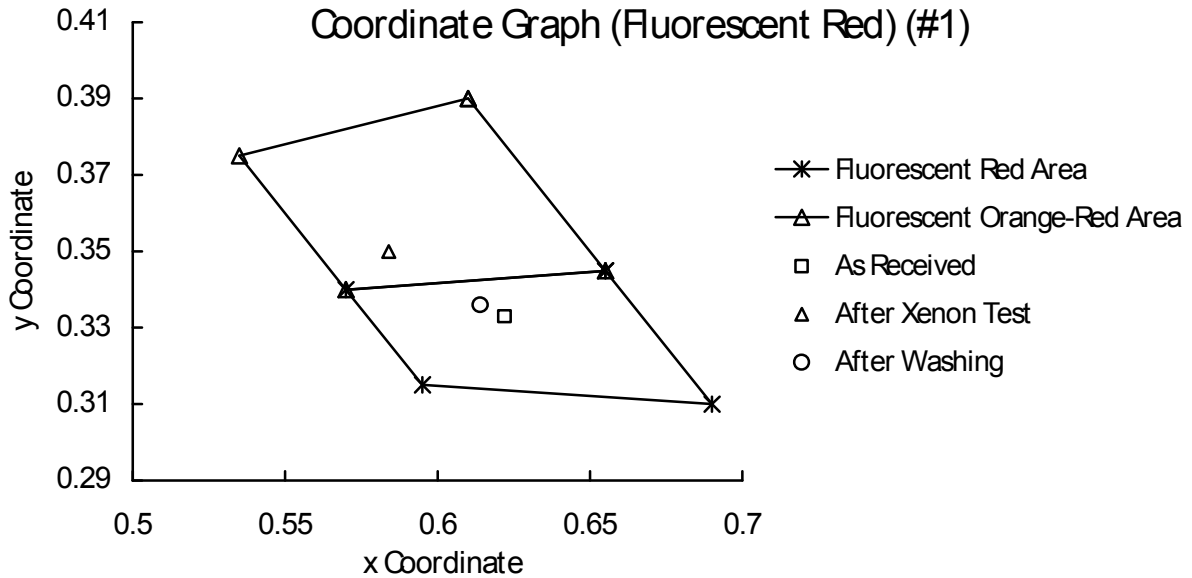
Note: The Specimen Is Backed By A Black Underlay With A Reflectance Of Less Than 0.04

Sample	Color	Pre-Condition	Chromaticity Coordinates			Total Luminance Factor	Applicant's Requirement	Pass/Fail
			ϵ	x	y	Y (%)		
-	Fluorescent Red	After Washing (#1 & #2)	0°	0.6139	0.3358	29	-	-
			90°	0.6146	0.3360	29	-	-
			Mean	0.614	0.336	29	*	Pass

Note: The Specimen Is Backed By A Black Underlay With A Reflectance Of Less Than 0.04



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) (Cont)



Remark: * =

Color	Chromaticity Coordinates		Minimum Total Luminance Factor Y (%)
	x	y	
Fluorescent Orange-Red	0.610	0.390	40
	0.535	0.375	
	0.570	0.340	
	0.655	0.345	
Fluorescent Red	0.655	0.345	25
	0.570	0.340	
	0.595	0.315	
	0.690	0.310	

NOTE: The Coordinate Of Sample Should Be Inside The Area Specified By The Table Above



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) (Cont)

= Xenon Test Based On AATCC 16.3-2014, Colorfastness To Light Xenon Arc. Expose The Materials To 40 AATCC Fading Units (170 KJ/m²@420nm).

#1 = Two Layers Of The Same Material

#2 = ISO 6330:2012, Wash Condition:

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

#3 = A Fluorescent Red Is Acceptable If After Exposure To Xenon Light Its Colour-Coordinates Are Within The Tolerated Area For Orange-Red And If It's Luminance Factor Is Higher Than 0.4. And The Colour After Exposure Changed From Fluorescent Red To Fluorescent Orange-Red. This Shall Be Mentioned In The Instruction For Use.

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 ± 5)%

Period: 24 Hours

Sample	Test Condition	Results	Requirement	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
Oven Temperature: (38 ± 1)°C
Test Period: 6 h ± 5 min

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

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

Test Condition:

Pressure: 4.5 kg
Oven Temperature: (38 ± 1)°C
Test Period: 18 h

Sample	Results			Requirement	Pass / Fail
-	Color Change:		Grade 4.5	Min. Grade 3.0	Pass
	Staining	-Acetate	Grade 4.5	Min. Grade 3.0	Pass
		-Cotton	Grade 4.5		
		-Nylon	Grade 4.5		
		-Polyester	Grade 4.5		
		-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	Results			Requirement	Pass / Fail
-	Color Change:	Grade 4.5		Min. Grade 4.5	Pass
	Color Stain:	-Acetate	Grade 3.5	Min. Grade 3.0	Pass
		-Cotton	Grade 4.0		
		-Nylon	Grade 3.5		
		-Polyester	Grade 4.0		
		-Acrylic	Grade 4.5		
		-Wool	Grade 4.5		

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

Remark: This Test In The Report Is Not Included In The CNAS Accreditation Schedule For Our Laboratory.

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

Test Condition:

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

Cleaning Cycles: 5

Sample	Results		Requirement	Pass / Fail
-	Length	-0.8%	*	Pass
	Width	-1.6%	*	Pass

Remark: * =

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

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

This Test In The Report Is Not Included In The CNAS Accreditation Schedule For Our Laboratory.





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

Preconditioning:

Temperature: (20 ± 2) °C

Relative Humidity: (65 ± 5) %

Period: 24 Hours

Sample	Specimen	Results	Requirement	Pass/Fail
-	1	738.5 N	Min. 178 N	Pass
	2	678.5 N	Min. 178 N	Pass
	3	706.5 N	Min. 178 N	Pass
	4	751.5 N	Min. 178 N	Pass
	5	769.5 N	Min. 178 N	Pass
	Average		730.0 N	Min. 178 N

Remark: N = Newton

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

This Test In The Report Is Not Included In The CNAS Accreditation Schedule For Our Laboratory.



intertek

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TEST REPORT

Tests Conducted (As Requested By The Applicant)



中国认可
国际互认
检测
TESTING
CNAS L0220

Number: GZHT91049997



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.

/ lydiayang

Page 8 Of 8

Intertek Testing Services Shenzhen Ltd. Guangzhou Branch

深圳天祥质量技术服务有限公司广州分公司

Room 02, 1-8/F. & Room 01, E101/E201/E301/E401/E501/E601/E701/E801,
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Certificate of Test

Issued To: TRC NANJING REPRESENTATIVE
OFFICE
ROOM 1809,#3 BUILDING,
DEYING INT'L PLAZA,#222 CHANGHONG
ROAD,
YUHUATAI DISTRICT,NANJING 210012

Our Reference No.: GZHT9107406002

Certificate Issue Date: Dec 09, 2021

Attn: ANNE WANG

Description: One (1) piece of submitted sample said to be Silver CS 4006 (Z-002) Segmented Reflective Tape on Yellow fabric.

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.: GZHT91074060 Dated: Dec 09, 2021

Note:

- 1 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.
- 2 This Certificate Is Valid Only For The Applicant's Selected Test Items And Must Not Be Used Without The Attached Test Report.
- 3 This Certificate Must Not Be Confused Neither With The EU Type Examination Certificate Released By Nofified Body Nor With The Conformaity Declaration Released By Manufacturer.

Authorized By:
For Intertek Testing Services Shenzhen Ltd.
Guangzhou Branch



Guiliang Dong
Senior Lab Manager





Total Quality. Assured.

TEST REPORT



中国认可
国际互认
检测
TESTING
CNAS L0220

Number: GZHT91074060

Date: Dec 09, 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 Silver CS 4006 (Z-002) Segmented Reflective Tape on Yellow fabric.
Standard : ANSI/ISEA 107-2020
Buyer : Tingley Rubber Corporation
Ref. : CS 4006 (Z-002) Segmented Reflective Tape,#HX21071713
Goods Exported to : U.S.A.
Date Received/Date Test Started Oct. 28, 2021
Date Final Information Confirmed/ --/Dec. 07, 2021
Date Payment Received:

Test Result Please Refer To Attached Page(S).

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

Authorized By:
For Intertek Testing Services Shenzhen Ltd.
Guangzhou Branch

Guiliang Dong
Senior Lab Manager

/ lydiayang



Intertek Testing Services Shenzhen Ltd. Guangzhou Branch
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1 Retroreflective Performance Prior to Test Exposure (ANSI/ISEA 107-2020, 9.1 & 10.3 & ASTM E809-08(2013))

Sample	Observation Angle	Entrance Angle β_1 ($\beta_2=0$)	Coefficient Of Retroreflection $cd/(lx \cdot m^2)$		Requirement	Pass/Fail
-	0.20° [12']	5°	549	534	Min. 330/248 $cd/(lx \cdot m^2)$ (*)	Pass
		20°	568	554	Min. 290/218 $cd/(lx \cdot m^2)$ (*)	Pass
		30°	578	556	Min. 180/135 $cd/(lx \cdot m^2)$ (*)	Pass
		40°	490	460	Min. 65/47 $cd/(lx \cdot m^2)$ (*)	Pass
	0.33° [20']	5°	346	343	Min. 250/188 $cd/(lx \cdot m^2)$ (*)	Pass
		20°	369	344	Min. 200/150 $cd/(lx \cdot m^2)$ (*)	Pass
		30°	379	368	Min. 170/128 $cd/(lx \cdot m^2)$ (*)	Pass
		40°	345	327	Min. 60/45 $cd/(lx \cdot m^2)$ (*)	Pass
	1.0°	5°	56.9	56.7	Min. 25/18.8 $cd/(lx \cdot m^2)$ (*)	Pass
		20°	55.9	53.4	Min. 15/11.3 $cd/(lx \cdot m^2)$ (*)	Pass
		30°	58.7	56.5	Min. 12/9 $cd/(lx \cdot m^2)$ (*)	Pass
		40°	43.3	42.0	Min. 10/7.5 $cd/(lx \cdot m^2)$ (*)	Pass
1.5° [1° 30']	5°	15.6	15.1	Min. 10/7.5 $cd/(lx \cdot m^2)$ (*)	Pass	
	20°	15.7	15.6	Min. 7/5.25 $cd/(lx \cdot m^2)$ (*)	Pass	
	30°	17.0	15.9	Min. 5/3.75 $cd/(lx \cdot m^2)$ (*)	Pass	
	40°	16.8	14.9	Min. 4/3 $cd/(lx \cdot m^2)$ (*)	Pass	

*= 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 β_1 ($\beta_2 = 0^\circ$)	Coefficient Of Retroreflection	Requirement	Pass / Fail
-	0.20° [12']	5°	427 cd/(lx·m ²)	Min. 100 cd/(lx·m ²)	Pass

Sample	y-Direction (Vertical: $\epsilon=90^\circ$)				
	Observation Angle	Entrance Angle β_1 ($\beta_2 = 0^\circ$)	Coefficient Of Retroreflection	Requirement	Pass / Fail
-	0.20° [12']	5°	405 cd/(lx·m ²)	Min. 75 cd/(lx·m ²)	Pass

3 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 β_1 ($\beta_2 = 0^\circ$)	Coefficient Of Retroreflection	Requirement	Pass / Fail
-	0.20° [12']	5°	524 cd/(lx·m ²)	Min. 100 cd/(lx·m ²)	Pass

Sample	y-Direction (Vertical: $\epsilon=90^\circ$)				
	Observation Angle	Entrance Angle β_1 ($\beta_2 = 0^\circ$)	Coefficient Of Retroreflection	Requirement	Pass / Fail
-	0.20° [12']	5°	511 cd/(lx·m ²)	Min. 75 cd/(lx·m ²)	Pass



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 ± 1)°C For 4 Hours

Sample	x-Direction (Horizontal: $\epsilon=0^\circ$)				
	Observation Angle	Entrance Angle β_1 ($\beta_2 = 0^\circ$)	Coefficient Of Retroreflection	Requirement	Pass / Fail
-	0.20° [12']	5°	511 cd/(lx·m ²)	Min. 100 cd/(lx·m ²)	Pass

Sample	y-Direction (Vertical: $\epsilon=90^\circ$)				
	Observation Angle	Entrance Angle β_1 ($\beta_2 = 0^\circ$)	Coefficient Of Retroreflection	Requirement	Pass / Fail
-	0.20° [12']	5°	501 cd/(lx·m ²)	Min. 75 cd/(lx·m ²)	Pass

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

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

Sample	x-Direction (Horizontal: $\epsilon=0^\circ$)				
	Observation Angle	Entrance Angle β_1 ($\beta_2 = 0^\circ$)	Coefficient Of Retroreflection	Requirement	Pass / Fail
-	0.20° [12']	5°	506 cd/(lx·m ²)	Min. 100 cd/(lx·m ²)	Pass

Sample	y-Direction (Vertical: $\epsilon=90^\circ$)				
	Observation Angle	Entrance Angle β_1 ($\beta_2 = 0^\circ$)	Coefficient Of Retroreflection	Requirement	Pass / Fail
-	0.20° [12']	5°	497 cd/(lx·m ²)	Min. 75 cd/(lx·m ²)	Pass



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

Wash Condition:

Washing Standard:	ISO 6330:2012
Machine:	Type A
Reagent:	Reference Detergent 3
Washing Procedure:	6N
Bleaching Procedure:	-
Drying Procedure:	After Each Wash Cycle Dried The Samples At 50±5°C.
Ironing Procedure:	-
Professional Textile Care Procedure:	-
Number Of Cycles:	25

Sample	x-Direction (Horizontal: $\epsilon=0^\circ$)				
	Observation Angle	Entrance Angle β_1 ($\beta_2 = 0^\circ$)	Coefficient Of Retroreflection	Requirement	Pass / Fail
-	0.20° [12']	5°	436 cd/(lx·m ²)	Min. 100 cd/(lx·m ²)	Pass

Sample	y-Direction (Vertical: $\epsilon=90^\circ$)				
	Observation Angle	Entrance Angle β_1 ($\beta_2 = 0^\circ$)	Coefficient Of Retroreflection	Requirement	Pass / Fail
-	0.20° [12']	5°	402 cd/(lx·m ²)	Min. 75 cd/(lx·m ²)	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 β_1 ($\beta_2 = 0^\circ$)	Coefficient Of Retroreflection	Requirement	Pass / Fail
-	0.20° [12']	5°	377 cd/(lx·m ²)	Min. 100 cd/(lx·m ²)	Pass

Sample	y-Direction (Vertical: $\epsilon=90^\circ$)				
	Observation Angle	Entrance Angle β_1 ($\beta_2 = 0^\circ$)	Coefficient Of Retroreflection	Requirement	Pass / Fail
-	0.20° [12']	5°	299 cd/(lx·m ²)	Min. 75 cd/(lx·m ²)	Pass





End Of Report

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