KUNSHAN SUNSHINETEX NEW MATERIAL CO.,LTD
NO 417 SANXIANG ROAD KUNSHAN CITY JIANGSU PROVINCE CHINA

The following sample(s) was/were submitted and identified on behalf of the client as:

Sample Description	:	(A,B)Softshell
Sample Color	:	(A)HV yellow;(B)HV orange
Composition	:	(A)87% polyester recycled, 2%SP, 5% TPU membrane, 6% PUR; (B)87% polyester recycled, 2%SP, 5% TPU membrane, 6% PUR
Fabric Reference Code	:	TSA051
Proposed Care Instruction	:	-
Test Performed	:	Selected test(s) as requested by applicant
Sample Receiving Date	:	Jan 13, 2025
Testing Period	:	Jan 13, 2025 - Jan 20, 2025
Test Result(s)	:	Unless otherwise stated the results shown in this test report refer only to the sample(s) tested, for further details, please refer to the following page(s).

High-visibility clothing - Test methods and requirements (EN ISO 20471:2013+A1:2016)

Conclusion	A	B	Remark
Clause 5.2 Colour Performance Requirements of Materials after Xenon Test	-	PASS	
Clause 5.3.3 Colour Fastness To Washing	PASS	PASS	
Clause 5.4 Dimensional Change after Domestic Washing	PASS	-	

Remark(s) : PASS=Meet General Requirement

Signed for and on behalf of
SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd

Sara Guo (Account Executive)

检验检测专用章 Inspection & Testing Services
SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. Softline Laboratory

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Test Result

High-visibility clothing - Test methods and requirements
EN ISO 20471:2013+A1:2016

Clause 5.2 Colour Performance Requirements of Materials after Xenon Test

(EN ISO 20471:2013+A1:2016, Clause 7.2)

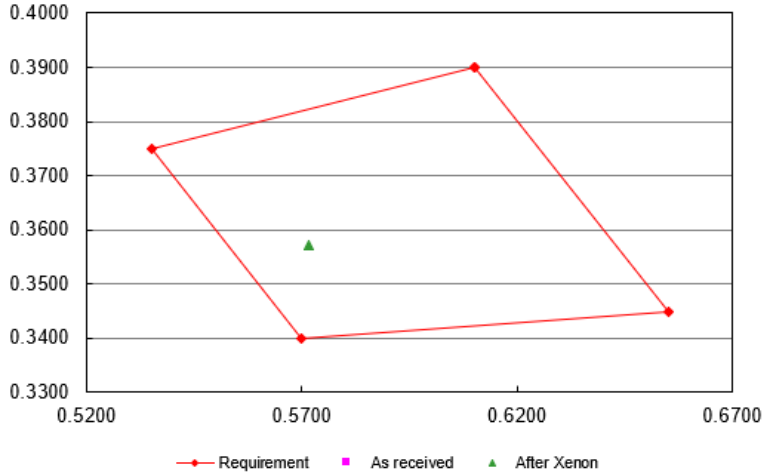
-	Unit	B
Chromaticity coordinates, x value	-	0.572
Chromaticity coordinates, y value	-	0.357
Luminance Factor, ß	-	0.53

Conclusion: Pass

Remark:
1. The chromaticity coordinates and the luminance factor shall comply with the requirement as below. The chromaticity shall be within one of the areas and the luminance factor shall comply with the corresponding minimum value.

Fluorescent orange-red:
Chromaticity coordinates x/y: 0.610/0.390, 0.535/0.375, 0.570/0.340, 0.655/0.345.
Minimum luminance factor βmin : 0.40

Graphs:



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Clause 5.3.3 Colour Fastness To Washing

(ISO 105-C06:2010;Test No.:C1S, Machine wash at 60°C with 4g/L ECE (B) Detergent with 25 Steel Balls, pH=10.5 ± 0.1)

-	Unit	A	B	Requirement
Change in Shade	Grade	4-5	4-5	Min.4-5
Staining On Multi-fibre Stripe				Min.4
Triacetate	Grade	4-5	4-5	
Cotton	Grade	4-5	4-5	
Polyamide	Grade	3-4	3-4	
Polyester	Grade	4-5*	4-5*	
Acrylic	Grade	4-5	4-5	
Viscose	Grade	4-5	4-5	

Grey Scale Rating is based on the 5-step scale of 1 to 5, where 1 is bad and 5 is good.
*Select only the fibre corresponding to the fibres of the background and non-fluorescent material

Clause 5.4 Dimensional Change after Domestic Washing

(ISO 3759:2011/ISO 5077:2007/ISO 6330:2021;Using horizontal axis, front-loading type machine; Procedure No.6N, Machine Wash At 60°C; with 2.0±0.2kg total dry mass (Type III (100% Polyester) Ballast+ Specimen) and 20±1 g ECE reference detergent 98 without optical brightener, Tumble Dry Normal, Not Exceeding 80°C.)

After 5 Washes

-	Unit	A	Requirement
Lengthwise	%	-1.8	+/-3%
Widthwise	%	-0.8	+/-3%

Remark: (+)Means Growth; (-)Means Shrinkage

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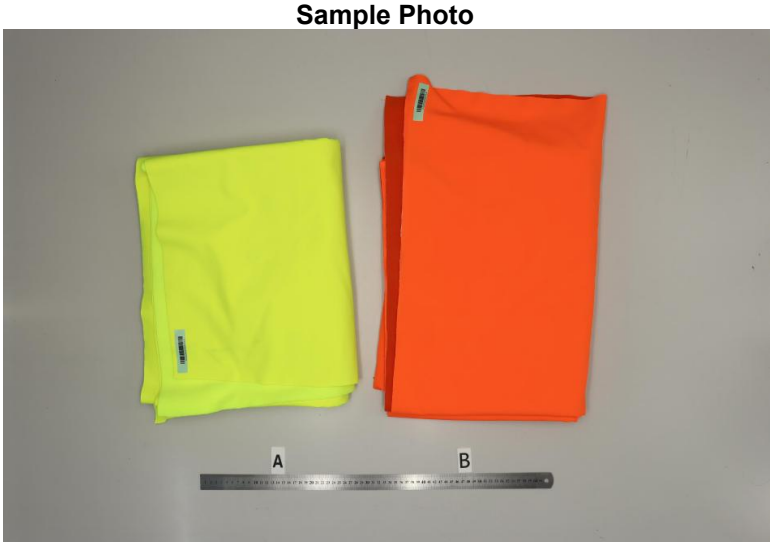
Sample Photo



Unless otherwise stated, the decision rule for conformity reporting is based on Binary Statement for Simple Acceptance Rule (w=0) stated in ILAC-G8:09/2019.

End of Report

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