

Test Report

No.: NBHL2401001814SG

Date: FEB. 08, 2024

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PAUL STRICKER SA | PAUL STRICKER CZ S.R.O | REDA A.S.
NÚCLEO IND. MURTEDE, LT 5, 3060-372 MURTEDE, PORTUGAL | HVIEZDOSLAVOVA 55D, 627 00
BRNO | CZECH REPUBLIC

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

Sample Description : SUNGLASSES

Sample Quantity : 10 PCS

Item No. : REF. 98313

Manufacturer : 0031812

Supplier : 0031812

Buyer : PAUL STRICKER SA

Country of Origin : CHINA

Country of Destination : EUROPE

Sample Receiving Date : JAN. 31, 2024

Testing Period : JAN. 31, 2024 TO FEB. 08, 2024

Test Requested

1. EN ISO 12312-1:2013+A1:2015 Eye and face protection – Sunglasses and related eyewear part 1 : Sunglasses for general use (excluding clause 4.3 Physiological compatibility)
2. UV 400 (The transmittance between 280nm and 400nm)

Result

Pass

Pass

Signed for and on behalf of
SGS-CSTC Standards Technical Services Co., Ltd. Ningbo Branch

Ruby Gu

Ruby Gu
Authorized Signatory



SGS-CSTC Standards Technical Services Co., Ltd.
Ningbo Branch

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Test Conducted:

1. EN ISO 12312-1:2013+A1:2015 Eye and face protection — Sunglasses and related eyewear.

Scope : This part of EN ISO 12312 is applicable to all afocal (plano power) sunglasses and clip-ons for general use, including road use and driving, intended for protection against solar radiation.
This part of EN ISO 12312 is not applicable to related eyewear, such as:
a) eyewear for protection against radiation from artificial light sources, such as those used in solarium;
b) eye protectors intended for specific sports (e.g. ski goggles or other types);
c) sunglasses that have been medically prescribed for attenuating solar radiation;
d) products intended for direct observation of the sun, such as for viewing a partial or annular solar eclipse.
e) products intended for occupational eye protection.

Filter Type : Uniform Glasses
Conditioning : 23 ± 5°C, 4 hours
before tests
Test Condition : 16 °C - 32 °C , 50 ± 20% RH
Test Result : Details shown as following table:-
Remark : Transmittance and Optical Properties are measured at reference point (visual centre)

Test Item	Result	Note
Clause 4 Construction and materials:		
Clause 4.1 Construction	PASS	--
Clause 4.2 Filter material and surface quality	PASS	--
Clause 4.3 Physiological compatibility	N/C	See Result 4,5
Clause 5 Transmittance		
Clause 5.2 Transmittance and filter categories	PASS	See Note 1 & Table I
Clause 5.3 General transmittance requirements	--	--
Clause 5.3.1 Uniformity of luminous transmittance	PASS	--
Clause 5.3.2 Requirements for road use and driving	--	--
Clause 5.3.2.1 General	PASS	--
Clause 5.3.2.2 Driving in twilight or at night	--	See Note 2
Clause 5.3.3 Wide angle scattering	PASS	--
Clause 5.3.4 Additional transmittance requirements for specific filter types	--	--
Clause 5.3.4.1 Photochromic filters	N/A	See Note 3
Clause 5.3.4.2 Polarizing filters	N/A	See Note 3
Clause 5.3.4.3 Gradient filters	N/A	See Note 3
Clause 5.3.5 Claimed transmittance properties	--	--
Clause 5.3.5.1 Blue-light absorption/transmittance	N/A	No claims, See Note 3
Clause 5.3.5.1.1 Blue-light absorption	N/A	No claims, See Note 3
Clause 5.3.5.1.2 Blue-light transmittance	N/A	No claims, See Note 3



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Clause 5 Transmittance

Clause 5.3.5.2 UV absorption/transmittance	---	---
Clause 5.3.5.2.1 General	---	---
Clause 5.3.5.2.2 Solar UV absorption	N/A	No claims, See Note 3
Clause 5.3.5.2.3 Solar UV transmittance	N/A	No claims, See Note 3
Clause 5.3.5.2.4 Solar UV-A absorption	N/A	No claims, See Note 3
Clause 5.3.5.2.5 Solar UV-A transmittance	N/A	No claims, See Note 3
Clause 5.3.5.2.6 Solar UV-B absorption	N/A	No claims, See Note 3
Clause 5.3.5.2.7 Solar UV-B transmittance	N/A	No claims, See Note 3
Clause 5.3.5.3 Antireflective coated sunglasses	N/A	No claims, See Note 3
Clause 5.3.5.4 Enhanced infrared absorption	N/A	No claims, See Note 3

Clause 6 Refractive power

Clause 6.1 Spherical and astigmatic power	PASS	--
Clause 6.2 Local variations in refractive power	N/A	See Note 3
Clause 6.3 Prism imbalance (relative prism error)	PASS	--

Clause 7 Robustness

Clause 7.1 Minimum robustness of filters	PASS	--
Clause 7.2 Frame deformation and retention of filters	PASS	See Note 6
Clause 7.3 Impact resistance of the filter, strength level 1 (optional specification)	N/A	Optional Specification, See Note 3
Clause 7.4 Increased endurance of sunglasses (optional specification)	N/A	Optional Specification, See Note 3
Clause 7.5 Resistance to perspiration (optional specification)	N/A	Optional Specification, See Note 3
Clause 7.6 Impact resistance of the filter, strength level 2 or 3 (optional specification)	N/A	Optional Specification, See Note 3

Clause 8 Resistance to solar radiation

PASS --

Clause 9 Resistance to ignition

PASS --

Clause 10 Resistance to abrasion (optional specification)

N/A Optional Specification, See Note 3

Clause 11 Protective requirements

Clause 11.1 Coverage area	PASS	--
Clause 11.2 Temporal protective requirements	N/A	See Note 3

Clause 12 Information and labelling

Clause 12.1 Information to be supplied with each pair of sunglasses	Pass	--
Clause 12.2 Additional information	--	See Note 7

Note(s) : # 1 Claim: Category: 3
Actual: Category: 3
Luminous transmittance, τ_v (%):
Left Filter 11.89%
Right Filter 12.98%



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- # 2 The filter has a luminous transmittance of less than 75 % and higher than 8 %, the following warning: "Not suitable for driving in twilight or at night" or "Not suitable for driving at night or under condition of dull light" should be provided.
- # 3 "N/A" means not applicable for the submitted sample.
- # 4 "N/C" means not conducted on this report as client requested.
- # 5 Sunglasses shall be designed and manufactured in such a way that when used under the conditions and for the purposes intended, they will not compromise the health and safety of the wearer. The risks posed by substances leaking from the device that may come into prolonged contact with the skin shall be reduced by the manufacturer to below any regulatory limit. Special attention shall be given to substances which are allergenic, carcinogenic, mutagenic or toxic to reproduction.
- # 6 No fracture at any point observed, the deformation is below 2%.
- # 7 The following information shall be available from the manufacturer on request.
 - a) An explanation of the trademarks that are not universally recognized or foreseen by the users of this part of ISO 12312.
 - b) The position of the reference point when different from the one defined in this part of ISO 12312.
 - c) The country of origin (e.g. "made in").
 - d) The nominal value of luminous transmittance.
 - e) Transmission requirements applicable to this product.

Table I. Category requirements for sunglasses filters for general use

Description label	Filter category	Requirements			
		Ultraviolet spectral range		Visible spectral range	Enhanced infrared absorption
		Maximum value of solar UV-B transmittance, τ_{SUVB}	Maximum value of solar UV-A transmittance, τ_{SUVA}	Range of luminous transmittance, τ_v	Maximum value of solar IR transmittance τ_{SIR}
		280 nm -315 nm	315 nm -380 nm	380 nm -780 nm	780 nm -2000 nm
Light tint sunglasses	0	$0.05 \times \tau_v$	τ_v	$\tau_v > 80\%$	τ_v
	1			$43\% < \tau_v \leq 80\%$	τ_v
General purpose sunglasses	2	1.0% or $0.05\tau_v$ (whichever is greater)	$0.5 \times \tau_v$	$18\% < \tau_v \leq 43\%$	τ_v
	3	1.0%		$8\% < \tau_v \leq 18\%$	τ_v
Very dark Special Purpose sunglasses	4	1.0%	1.0% or $0.25\tau_v$ (whichever is greater)	$3\% < \tau_v \leq 8\%$	τ_v



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2. UV 400

Test method: With reference to clause 7.1.1 of EN ISO 12311:2013 (the calculation of mean of the weighted spectral transmittance between 280nm and 400nm refer to clause 7.1.2 and 7.3.1 of EN ISO 12311:2013)

Performance Parameter	Value (%) (Left Filter)	Value (%) (Right Filter)	Requirements	Result
Solar UV Transmittance, τ_{SUV} (280nm – 400nm)	0.10	0.12	$\leq 0.5\%$	PASS
Solar UVA Transmittance, τ_{SUVA} (315nm – 400nm)	0.12	0.14	$\leq 0.5\%$	PASS
Solar UVB Transmittance, τ_{SUVB} (280nm – 315nm)	0.05	0.07	$\leq 0.5\%$	PASS

Remark:

- Since the data and / or information above division line of front page is provided by the applicant, the relevant results or conclusions of this report are only made for these data and / or information, SGS shall not be responsible for the authenticity and integrity of such data and information and the validity of the results and / or conclusions arising therefrom. Testing results only apply to the sample as received.
- The declaration of conformity is based on acceptance limits chosen based on simple acceptance ($w = 0$, $AL = TL$).

Statements of conformity are reported as:

Passed - The measured values were observed in tolerance at the points tested.

Failed - One or more measured values were observed out of tolerance at the points tested.



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Test Sample Photo:



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