

TEST REPORT

Applicant: MID OCEAN BRANDS B.V.
UNIT 711-716 7/F TOWER A
83 KING LAM STREET
CHEUNG SHA WAN KOWLOON
HONG KONG

Number: HKGH03273168

Date: Jul 25, 2025

Attn: DEREK HUI

Sample and Information provided by customer :
Item Name : **Sunglasses**
Item No. : **MO6531**
Quantity : **13 pairs**
Country of Origin : **China**

For and on behalf of :
Intertek Testing Services HK Ltd.



Dorothy M.Y. Lau
Vice President



Page 1 of 13

TEST REPORT

Number : HKGH03273168

Conclusion:

The submitted sample was tested under the following requirements requested by the applicant, subject to the information stated in the remark and attached page(s) for details :

<u>Requirement</u>	<u>Result</u>
(1) UV-400	Pass
(2) BS 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 - Clause 12.2 – Additional Information	Pass

Decision Rule(s):

When a statement of conformity to a specification or standard is provided on test report, the decision rule shall be applied. For details, please refer to Intertek's "Decision Rule Document" and is available on Intertek's website. <https://intertekhk.grd.by/decision-rule-doc..>

If decision rule already inhered in the requested specification or standard, Intertek's "Decision Rule Document" is not applicable and indication of "∞" was shown as above table.



Page 2 of 13



TEST REPORT

Number : HKGH03273168

(1) UV-400

Test Method : Assessment was made against a level of 100% UV protection, in which the spectral transmittance was examined within a range of 280nm - 400nm to ensure that a transmittance value of 0.5% was not exceeded.

Number of sample tested : One (1) pair.

Result :

Wavelength (nm)	Transmittance (%)	
	Left ocular	Right ocular
280	<0.10	<0.10
285	<0.10	<0.10
290	<0.10	<0.10
295	<0.10	<0.10
300	<0.10	<0.10
305	<0.10	<0.10
310	<0.10	<0.10
315	<0.10	<0.10
320	<0.10	<0.10
325	<0.10	<0.10
330	<0.10	<0.10
335	<0.10	<0.10
340	<0.10	<0.10
345	<0.10	<0.10
350	<0.10	<0.10
355	<0.10	<0.10
360	<0.10	<0.10
365	<0.10	<0.10
370	0.20	0.11
375	0.10	<0.10
380	<0.10	<0.10
385	<0.10	<0.10
390	<0.10	<0.10
395	<0.10	<0.10
400	0.40	0.35

Comment : The submitted sample was considered acceptable to make a claim of "UV 400" protection, the criteria of which was mentioned above.

Date sample received : Jul 15, 2025
Testing period : Jul 15, 2025 to Jul 21, 2025



Page 3 of 13



TEST REPORT

Number : HKGH03273168

(2) Requirements for Sunglasses (Uniformly Tinted Lenses)

Test standard: BS EN ISO 12312-1:2013+A1:2015 – Eye and face protection – Sunglasses and related eyewear – Part 1: Sunglasses for general use

Test method refers ISO 12311:2013 Personal protective equipment - Test methods for sunglasses and related eyewear.

Number of samples tested: Four (4) pairs (Black color)

Note :

- (1) The submitted sunglasses were declared by applicant for adult use.
- (2) Physiological compatibility
Note: 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.
- (3) CE marking or UKCA marking is not specified in BS EN ISO 12312-1:2013+A1:2015. However, per Regulation (EU) 2016/425 or UK2019 SI696 Schedule 35 Regulation 38, the CE marking or UKCA marking shall be affixed visibly, legibly and indelibly to the sunglasses frame respectively.

It was found that only CE marking was provided on the sunglasses frame.

Clause	Requirement	Result
4	Construction and materials	
4.1	Construction	P
4.2	Filter material and surface quality	P
4.3	Physiological compatibility	Note (2)
5	Transmittance	
5.2	Transmittance and filter categories	P
5.3	General transmittance requirements	
5.3.1	Uniformity of luminous transmittance	P
5.3.2.1a	Spectral transmittance	P
5.3.2.1b	Detection of signal lights	P
5.3.2.2	Driving in twilight or at night	P
5.3.3	Wide angle scattering	P
5.3.4	Additional transmittance requirements for specific filter types	
5.3.4.1	Photochromic filters	NA
5.3.4.2	Polarizing filters	NA
5.3.4.3	Gradient filters	NA
5.3.5	Claimed transmittance properties	NA (No claim)
6	Refractive power	



Page 4 of 13



TEST REPORT

Number : HKGH03273168

Clause	Requirement	Result
6.1	Spherical and astigmatic power	P
6.2	Local variations in refractive power	NA
6.3	Prism imbalance (relative prism error)	P
7	Robustness	
7.1	Minimum robustness of filters	P
7.2	Frame deformation and retention of filters	P
7.3	Impact resistance of the filter, strength level 1 (optional specification)	NA (No claim)
7.4	Increased endurance of sunglasses (optional specification)	NA (No claim)
7.5	Resistance to perspiration (optional specification)	NA (No claim)
7.6	Impact resistance of the filter, strength level 2 or 3 (optional specification)	NA (No claim)
8	Resistance to solar radiation	P
9	Resistance to ignition	P
10	Resistance to abrasion (optional specification)	NA (No claim)
11	Protective requirements	
11.1	Coverage area	P
11.2	Temporal protective requirements	NA
12	Information and labeling	
12.1	Information to be supplied with each pair of sunglasses	P (Note 3)
12.2	Additional information	#1

Abbreviation: P = Pass; NA = Not Applicable

Test data:

5.2 Transmittance and filter categories

Range	Left ocular (%)	Right ocular (%)	Filter category
380 - 780nm (Tv)	26.03	27.97	2

Range	Maximum transmittance (%)		Limit (%)	
	Left ocular	Right ocular	Left	Right
280 - 315nm (T _{SUVB})	< 0.10	< 0.10	≤ 0.05Tv (1.30)	≤ 0.05Tv (1.40)
315 - 380nm (T _{SUVA})	< 0.10	< 0.10	≤ 0.5Tv (13.02)	≤ 0.5Tv (13.99)



Page 5 of 13



TEST REPORT

Number : HKGH03273168

Requirement:

Consumer label	Technical label	Requirements		
Descriptive label	Filter category	Ultraviolet spectral range		Visible spectral range
		Maximum value of solar UV-B transmittance T_{SUVB} 280 nm to 315 nm	Maximum value of solar UV-A transmittance T_{SUVA} 315 nm to 380 nm	Range of luminous transmittance (T_v) 380 nm to 780 nm
Light tint sunglasses	0	0.05 T_v	T_v	$T_v > 80\%$
	1	0.05 T_v	T_v	$43\% < T_v \leq 80\%$
General purpose sunglasses	2	1.0% absolute or 0.05 T_v , whichever is greater	0.5 T_v	$18\% < T_v \leq 43\%$
	3	1.0% absolute	0.5 T_v	$8\% < T_v \leq 18\%$
Very dark special purpose sunglasses	4	1.0% absolute	1.0% absolute or 0.25 T_v , whichever is greater	$3\% < T_v \leq 8\%$

5.3.1 Uniformity of luminous transmittance

Uniformity	Left ocular	Right ocular	Limit (%)
% variation within filter [relative to higher value]	3.18	1.53	≤ 10
% difference between filters [relative to lighter filter]	6.93		≤ 15

5.3.2.1a Spectral transmittance

Range	Minimum transmittance (%)		Limit (%)	
	Left ocular	Right ocular	Left ocular	Right ocular
475 - 650nm	24.13	26.02	$\geq 0.2 T_v$ (5.21)	$\geq 0.2 T_v$ (5.59)

5.3.2.1b Detection of signal lights

Signal light	Relative visual attenuation quotient, Q		Limit
	Left ocular	Right ocular	
Red	1.06	1.06	≥ 0.80
Yellow	0.99	0.99	≥ 0.60
Blue	1.06	1.06	≥ 0.60
Green	1.00	1.00	≥ 0.60



TEST REPORT

Number : HKGH03273168

5.3.3 Wide angle scattering

Wide angle scattering (%)	Left ocular	Right ocular	Requirement
	0.9	0.8	≤ 3

6.1 Optical power of oculars mounted in spectacles

Optical power	Left ocular	Right ocular	Limit
Spherical power (m^{-1})	-0.08	-0.07	± 0.12
Astigmatic power (m^{-1})	0.01	0.02	≤ 0.12
Difference of spherical power between left and right filters (m^{-1})	0.01		≤ 0.18

6.3 Prism imbalance (relative prism error)

Prismatic power difference (cm/m)			Limit (cm/m)
Horizontal	Base out	0.125	≤ 1.00
	Base in	--	≤ 0.25
Vertical		0.075	≤ 0.25

8 Resistance to radiation

(a) Relative change in the luminous transmittance after irradiation

Left ocular (%)	-0.39	Requirement $\pm 3\%$ for category 0 $\pm 5\%$ for category 1 $\pm 8\%$ for category 2 $\pm 10\%$ for categories 3 & 4
Right ocular (%)	-0.54	

(b) Wide angle scattering after solar radiation

Left ocular (%)	Right ocular (%)	Requirement (%)
0.8	0.8	≤ 3

(c) After the solar radiation process, the submitted sample also met the requirement for the ultraviolet spectral range for Tv as given by table 1 of the standard.



TEST REPORT

Number : HKGH03273168

Remarks:

#1 - 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.
- f) Polarization efficiency in cases of polarizing filters.
- g) The base material of filters and frame.

∞ - Decision rule required by the standard

If the measurement result plus or minus the uncertainty of measurement overlap the limit value of the test, the result shall be deemed to be a failure.

Date sample received : Jul 15, 2025

Testing period : Jul 15, 2025 to Jul 21, 2025



Page 8 of 13

TEST REPORT

Number : HKGH03273168

HKGH03273168-001



HKGH03273168-002



HKGH03273168-003



HKGH03273168-004



Page 9 of 13

TEST REPORT

Number : HKGH03273168

HKGH03273168-005



HKGH03273168-006



HKGH03273168-007



HKGH03273168-008



Page 10 of 13

TEST REPORT

Number : HKGH03273168

HKGH03273168-009



HKGH03273168-010



HKGH03273168-011



HKGH03273168-012



Page 11 of 13

TEST REPORT

Number : HKGH03273168

HKGH03273168-013



HKGH03273168-014



HKGH03273168-015



HKGH03273168-016



Page 12 of 13

TEST REPORT

Number : HKGH03273168

HKGH03273168-017



HKGH03273168-018



End of report

This report is for the exclusive use of Intertek's Client and is provided pursuant to the agreement between Intertek and its Client. Intertek's responsibility and liability are limited to and subject to our standard Terms and Conditions which can be obtained at our website: <http://www.intertek.com/terms/>. Intertek assumes no liability to any party, other than to the Client in accordance with the agreement, for any loss, expense or damage occasioned by the use of this report. Intertek is responsible for all the information provided in the reports, except when information is provided by the Client or when the Client requires the item to be tested acknowledging a deviation from specified conditions that can affect the validity of results.

The observations and test results in this report are relevant to the sample(s) tested and submitted by client. The report is not intended to be a recommendation for any particular course of action, you are responsible for acting as you see fit on the basis of the report results. This report does not discharge or release you from your legal obligations and duties to any other person. Only the Client is authorized to permit copying or distribution of this report and the report shall not be reproduced except in full. Any use of the Intertek name or one of its marks for the sale or advertisement of the tested material, product or service must first be approved in writing by Intertek. This report by itself does not imply that the material, product, or service is or has ever been under an Intertek certification program.



Page 13 of 13

