

Mechanical & Hardgoods Laboratory

Report No.: YA70074B/2018

Page: 1 of 5 Date: OCT. 31, 2018

**Pro-Sight Optical Co., LTD** 

NO.30, Ln.9, Fude St., Luzhu Dist., Kaohsiung 82146, TAIWAN

The following merchandise was submitted and identified by the applicant as:

Product Description: Photochromic sun lens

Country of Origin: TW

We have tested the submitted sample(s) as requested and the following results were obtained:

<u>Test Requested:</u> To refer to EN ISO 12312-1:2013+A1:2015 Eye and face protection — Sunglasses

and related eyewear — Part 1:Sunglasses for general use

Clause 5.2 Transmittance and filter categories

Clause 5.3.3 Wide angle scattering

Clause 5.3.4 Additional transmittance requirements for specific filter types

Clause 8 Resistance to solar radiation

<u>Test Method & Result:</u> --- See following sheet(s) ---

Date of Receipt: JUL. 30, 2018

Testing Period: JUL. 30 ~ AUG. 10, 2018

**Note:** This report supersedes the previous one bearing Report No: YA70074/2018, issued on AUG.10, 2018.

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Signed for and on behalf of SGS Taiwan Ltd.

Owen Cheng Manager

Laboratory address:

61, Kai-Fa Road, Nanzih Export Processing Zone, 81170, Kaohsiung, Taiwan

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### **Test Method & Result**

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

#### Clause

5 Transmittance

5.2 Transmittance and filter categories

# Finding

(Faded state)

(=)				
Sample	Filter Category	Range	Requirement	Test Value
		380 ~ 780 nm Luminous Transmittance (Tv0)	43 ~ 80 %	74.84 %
Yellow	1	280 ~ 315 nm TSUVB	<0.05 Tv0	0.00 Tv0 (0.00 %)
		315 ~ 380 nm TSUVA	< Tv0	0.00 Tv0 (0.01 %)
Pinky	1	380 ~ 780 nm Luminous Transmittance (Tv0)	43 ~ 80 %	45.53 %
		280 ~ 315 nm TSUVB	<0.05 Tv0	0.00 Tv0 (0.00 %)
		315 ~ 380 nm TSUVA	< Tv0	0.00 Tv0 (0.01 %)

#### (Darkened state)

Sample	Filter Category	Range	Requirement	Test Value
Yellow	3	380 ~ 780 nm Luminous Transmittance (Tv1)	8 ~ 18 %	14.72 %
	3	280 ~ 315 nm TSUVB	<1.0 %	0.00 Tv1 (0.00 %)
		315 ~ 380 nm TSUVA	<0.5 Tv1	0.00 Tv1 (0.01 %)
Pinky	3	380 ~ 780 nm Luminous Transmittance (Tv1)	8 ~ 18 %	15.35 %
		280 ~ 315 nm TSUVB	<1.0 %	0.00 Tv1 (0.00 %)
		315 ~ 380 nm TSUVA	<0.5 Tv1	0.00 Tv1 (0.01 %)

<sup>---</sup> See Next Page ---

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**Test Result** 

Clause

5.3.3 Wide angle scattering

Finding

Sample	Requirement	Test Value
Yellow	< 1 %	0.32 %
Pinky	< 1 %	0.97 %

- 5.3.4 Additional transmittance requirements for specific filter types
- 5.3.4.1 Photochromic filters

**Finding** 

Sample	Requirement	Test Value
Yellow	Tv0 / Tv1 > 3	5.08
Pinky	Tv0 / Tv1 > 3	2.96

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### **Test Result**

Clause

8 Resistance to solar radiation

Finding

Sample Hilfer Cafegory		Permitted Relative Change In Luminous Transmittance After Test	Test Value
Yellow 1		± 5%	-3.63 %
Pinky	1	± 5%	-2.83 %

### Following additional requirements shall be complied with also after the irradiation process.

a. Wide angle scattering

Sample	Requirement	Test Value
Yellow	< 1 %	0.25 %
Pinky	< 1 %	0.77 %

b. For photochromic filters, Tv0' / Tv1' (after radiation) shall be  $\geq 1,25$ 

Sample	Requirement	Test Value
Yellow	Tv0'(72.12%) / Tv1'(12.99%) > 3	5.55
Pinky	Tv0'(44.24%) / Tv1'(14.05%) > 3	3.14

c. Requirements For The Ultraviolet Spectral Range For Initial Tv0 (Luminous Transmittance)

Sample	Filter Category	Range	Requirement	Test Value
Yellow		280 ~ 315 nm TSUVB	<0.05 Tv0	0.00 Tv0 (0.01 %)
	1	315 ~ 380 nm TSUVA	< Tv0	0.00 Tv0 (0.01 %)
Pinky	1	280 ~ 315 nm TSUVB	<0.05 Tv0	0.00 Tv0 (0.01 %)
		315 ~ 380 nm TSUVA	< Tv0	0.00 Tv0 (0.01 %)

**Remark:** The values of test requirements were specified by applicant.

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#### - Picture(s) -



Photo "A": Appearance of sample (front view)

--- End of Report ---

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