

## TEST REPORT

Mechanical & Hardgoods Laboratory

Report No. : YA70074B/2018

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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:

Test Requested: 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

Test Method & Result: --- 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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Laboratory address:  
61, Kai-Fa Road, Nanzih Export Processing Zone, 81170, Kaohsiung, Taiwan

Signed for and on behalf of  
SGS Taiwan Ltd.

*Owen Cheng*  
Owen Cheng  
Manager



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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
Yellow	1	380 ~ 780 nm Luminous Transmittance (Tv0)	43 ~ 80 %	74.84 %
		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 %
		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 %)

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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	Filter Category	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	1	280 ~ 315 nm TSUVB	< 0.05 $Tv0$	0.00 $Tv0$ (0.01 %)
		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) –

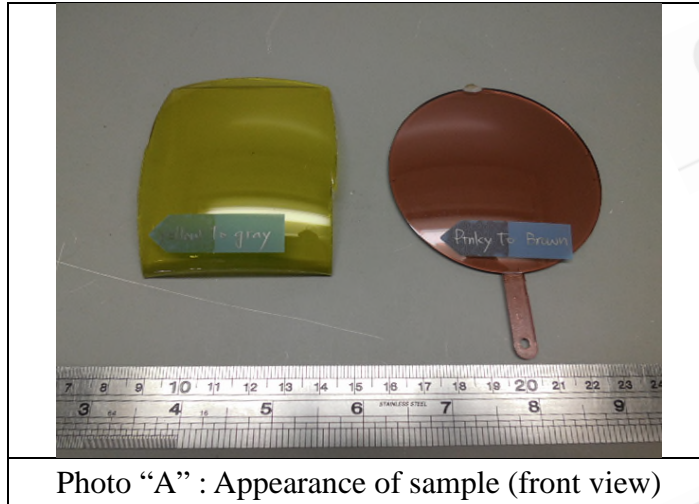


Photo "A" : Appearance of sample (front view)

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