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| <b>SAS VOLCOM</b> | <b>Master Test Report Eyewear</b> | No. of Document:<br>SV-200615-01 |
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**Test report sunglasses acc. to ISO 12312-1:2013/A1:2015 and to ISO 12312-3:2022**

Manufacturer: Zhangzhou TONY Optical CO., LTD.      Model: BUTTER  
 SAP number: VE02700201      Manufacturer's number: G3384 S10701 AS11  
 Lens material: PC      Frame material: POLYAMIDE(PA)  
 Lens colour: GRAY

| Item                                     | Requirement   | Relevant clause of ISO 12312-1:2013 | Result                            | Pass/Fail |
|--|---|-------------------------------------|-----------------------------------|-----------|
| Construction                             | smooth material without sharp projections   | 4.1                                 | OK                                | Pass      |
| Filter material and surface quality      | no material or machining defects  | 4.2                                 | OK                                | Pass      |
| Physiological compatibility              | nonhazardous materials  | 4.3                                 | OK                                | Pass      |
| Luminous Transmittance $T_{vis}$ [%]     | according to claimed filter category  | 5.2, according to table 1           | $T_{vis}$ : L:11.85%<br>cat: 3    | Pass      |
| UV-absorption                            | according to claimed filter category  | 5.2, according to table 1           | 400                               | Pass      |
| UV 400                                   | solar UV up to 400 nm below 0,5 %   | 5.3.5.2                             | 0.00%                             | Pass      |
| Homogeneity $T_{vis}$ left to right lens | < 15 % rel.   | 5.3.1                               | 2%                                | Pass      |
| Homogeneity $T_{vis}$ within the lens    | Cat. 0,1,2,3 < 10 %<br>Cat. 4 < 20 %  | 5.3.1                               | L:1.8% R:2.1%                     | Pass      |
| Requirements for road use                | $T_{spectral}$<br>detection of signal lights (Q values)   | 5.3.2.2<br>5.3.2.3                  | OK<br>R:1.12 Y:1.04 G:1.00 B:0.98 | Pass      |
| Driving in twilight or at night          | $T_{vis} > 75 \%$   | 5.3.2.4                             | NOT SUITABLE                      |           |
| Wide angle scattering [%]                | < 3 %   | 5.3.3                               | 0.33%                             | Pass      |
| Photochromic effect                      | $T_{vo}/T_{v1} \geq 1,25$   | 5.3.4.1                             | NONE                              |           |
| Polarizing effect                        | Cat. 2,3,4 > 8:1<br>Cat. 1 > 4:1  | 5.3.4.2                             | NONE                              |           |
| Spherical power [dpt.]                   | sph $\pm 0,12$  | 6.1                                 | L:0.01 R:0.05                     | Pass      |
| Astigmatic power [dpt.]                  | astigm. $\leq 0,12$   |                                     | L:0.01 R:0.05                     |           |
| Prism imbalance [cm/m]                   | horizontal base out $\leq 1,0$<br>base in $\leq 0,25$<br>vertical $\leq 0,25$   | 6.3                                 | 0.02<br>NONE<br>-0.09             | Pass      |
| Minimum robustness                       | no filter fracture or filter deformation  | 7.1                                 | OK                                | Pass      |
| Frame deformation                        | no fracture or permanent deformation, filter not detached   | 7.2                                 | OK                                | Pass      |
| Resistance to solar radiation            | change in luminous transmittance according to table 4<br>scattering < 3 %<br>$T_{vo}/T_{v1} \geq 1,25$<br>all UV requirements still fulfilled | 8                                   | OK<br>OK<br>NONE<br>OK            | Pass      |
| Resistance to ignition                   | no ignition or glowing  | 9                                   | OK                                | Pass      |
| Protective requirements                  | two ellipses covered<br>temporal protection for cat.4 glasses   | 11.1<br>11.2                        | OK<br>NONE                        | Pass      |
| Information and labelling                | all required information added  | 12.1                                | OK                                | Pass      |

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| Confirmation: | Manufacturer: Zhangzhou TONY Optical CO., LTD. | SAS VOLCOM     |
|               | Date 2022-01-17                                | Signature: 苏志慧 |

