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| SAS VOLCOM | Master Test Report Eyewear | No. of Document: 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: ALIVE
 SAP number: VE01302503 Manufacturer's number: G3521 M85361B B15
 Lens material: PC Frame material: POLYAMIDE(PA)
 Lens colour: BRONZE

| 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: 15.34% 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 % Cat. 4 < 20 % | 5.3.1 | L:10.0% R:8.7% | Pass |
| Requirements for road use | T spectral detection of signal lights (Q values) | 5.3.2.2 5.3.2.3 | OK R:1.30 Y:1.16 G:0.93 B:0.72 | Pass |
| Driving in twilight or at night | $T_{vis} > 75 \%$ | 5.3.2.4 | NOT SUITABLE | |
| Wide angle scattering [%] | < 3 % | 5.3.3 | 0.39% | Pass |
| Photochromic effect | $T_{v0}/T_{v1} \geq 1,25$ | 5.3.4.1 | NONE | |
| Polarizing effect | Cat. 2,3,4 > 8:1 Cat. 1 > 4:1 | 5.3.4.2 | NONE | |
| Spherical power [dpt.] | sph $\pm 0,12$ | 6.1 | L:-0.03 R:0.04 | Pass |
| Astigmatic power [dpt.] | astigm. $\leq 0,12$ | | L:-0.03 R:0.04 | |
| Prism imbalance [cm/m] | horizontal base out $\leq 1,0$ base in $\leq 0,25$ vertical $\leq 0,25$ | 6.3 | NONE -0.03 0.04 | 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 scattering < 3 % $T_{v0}/T_{v1} \geq 1,25$ all UV requirements still fulfilled | 8 | OK OK NONE OK | Pass |
| Resistance to ignition | no ignition or glowing | 9 | OK | Pass |
| Protective requirements | two ellipses covered temporal protection for cat.4 glasses | 11.1 11.2 | OK 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 |

