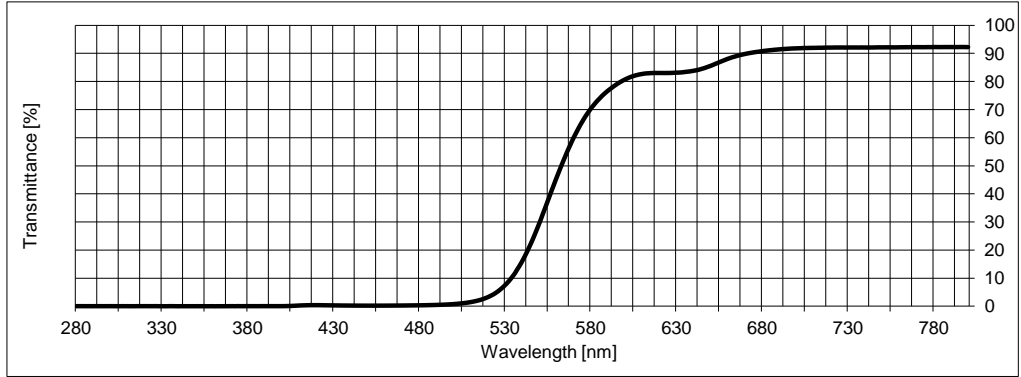


Wavelength [nm]	Transmission [%]
280	0,0
290	0,0
300	0,0
310	0,0
320	0,0
330	0,0
340	0,0
350	0,0
360	0,0
370	0,0
380	0,0
390	0,0
400	0,0
410	0,2
420	0,4
430	0,3
440	0,2
450	0,2
460	0,2
470	0,2
480	0,3
490	0,4
500	0,7
510	1,4
520	3,2
530	7,4
540	15,9
550	29,4
560	45,5
570	59,9
580	70,2
590	76,7
600	80,7
610	82,6
620	83,0
630	83,1
640	83,8
650	85,6
660	88,0
670	89,8
680	90,8
690	91,4
700	91,8
710	91,9
720	92,0
730	92,1
740	92,1
750	92,1
760	92,1
770	92,2
780	92,2
790	92,2
800	92,2



European Standard				DIN EN 1836:2005+A1:2007 (D)				Pass
Luminous transmittance (D65) τ_v :				40,2%	Filter category: 2			Limit value
UV	(280 - 380nm)	τ_{SUV} :	0,0%	100% UV-Absorption	$\tau_{F(\lambda)max}$ (280 - 315nm):	0,0%	Pass	4,0%
UVA	(315 - 380nm)	τ_{SUVA} :	0,0%		$\tau_{F(\lambda)max}$ (315 - 350nm):	0,0%	Pass	40,2%
UVB	(280 - 315nm)	τ_{SUBB} :	0,0%		$\tau_{SUVAmix}$ (315 - 380nm):	0,0%	Pass	40,2%
blue light	(380 - 500nm)	τ_{sb} :	0,3%		spectral transmittance (500-650nm) τ_{Vmin} :	0,7%	Fail	8,0%
Signal transmittance:								
red	signal transmittance τ_{sig} :	82,8%		Recognition of signal light Q:	2,06	Pass	0,8	
yellow	signal transmittance τ_{sig} :	66,8%		Recognition of signal light Q:	1,66	Pass	0,8	
green	signal transmittance τ_{sig} :	21,9%		Recognition of signal light Q:	0,55	Fail	0,6	
blue	signal transmittance τ_{sig} :	17,9%		Recognition of signal light Q:	0,45	Pass	0,4	
				transmission properties related to traffic signal recognition:				Fail

American Standard				ANSI Z80.3-2010				Fail	
Luminous transmittance (C) τ_v :				41,0%	primary function: Cosmetic lens or shield			shade: light	
					Limit value			Limit value	
					normal use			high exposure	
UVA, mean Transmittance	(315 - 380nm)	τ_{SUVA} :	0,0%	Pass	41,0%	Pass	20,5%		
UVB, mean Transmittance	(280 - 315nm)	τ_{SUBB} :	0,0%	Pass	5,1%	Pass	0,4%		
blue light	(380 - 500nm)	τ_{sb} :	0,3%		spectral transmittance (475-650nm) τ_{Vmin} :	0,3%	Fail	8,2%	
Signal transmittance:				Color Limits					
red	signal transmittance τ_{sig} :	84,6%	Pass	2°-Observer	D65	0,5641	0,4311	Fail	Please refer to sheet "Farbort"
yellow	signal transmittance τ_{sig} :	66,4%	Pass		Yellow	0,6080	0,3913	Pass	
green	signal transmittance τ_{sig} :	22,8%	Pass		Green	0,4399	0,5482	Fail	
				transmission properties related to traffic signal recognition:				Fail	

Australian Standard				AS/NZS 1067:2003 / AMDT 1:2009				Fail
Luminous transmittance (D65) τ_v :				40,2%	Lens category: 2			Limit value
UV	(280 - 380nm)	τ_{SUV} :	0,0%	100% UV-Absorption	$\tau_{F(\lambda)max}$ (280 - 315nm):	0,0%	Pass	2,0%
UVA	(315 - 380nm)	τ_{SUVA} :	0,0%		$\tau_{F(\lambda)max}$ (315 - 350nm):	0,0%	Pass	40,2%
UVB	(280 - 315nm)	τ_{SUBB} :	0,0%		$\tau_{SUVAmix}$ (315 - 380nm):	0,0%	Pass	40,2%
blue light	(400 - 500nm)	τ_{sb} :	0,3%		spectral transmittance (450-650nm) τ_{Vmin} :	0,2%	Fail	8,0%
Signal transmittance:								
red	signal transmittance τ_{sig} :	82,8%		Recognition of signal light Q:	2,06	Pass	0,8	
yellow	signal transmittance τ_{sig} :	66,8%		Recognition of signal light Q:	1,66	Pass	0,8	
green	signal transmittance τ_{sig} :	21,9%		Recognition of signal light Q:	0,55	Fail	0,6	
blue	signal transmittance τ_{sig} :	17,9%		Recognition of signal light Q:	0,45	Fail	0,7	

Demand on lenses for use by drivers at night according DIN EN ISO 14889:2009-07: **Fail**

Testreport Sunglasses

v = Pass x = Fail

Quantity	
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Frame

color correctness	
surface / col.	
soldering	
adjustment	
nickel test	
form / dimension	

Lenses

color	
size / form	
opt. quality	
UV-index / vertex power	
polarisation	
decentration	
random test	
Sign	

released	
blocked	
separated	

Colorimetric Observer according DIN 5033

Standard illuminant A			
2° Observer	x = 0,5964	y = 0,4016	Y = 5,54
CIELAB 1976	L* = 76,90	a* = 42,34	b* = 121,64
HUNTER	L = 71,67	a = 15,35	b = 8,92
10° Observer	x = 0,6012	y = 0,3976	Y = 5,67
CIELAB 1976	L* = 75,96	a* = 42,82	b* = 126,16
HUNTER	L = 70,58	a = 15,99	b = 90,22

Standard illuminant C			
2° Observer	x = 0,5644	y = 0,4306	Y = 4,14
CIELAB 1976	L* = 78,91	a* = 37,74	b* = 116,82
HUNTER	L = 20,35	a = 12,00	b = 14,11
10° Observer	x = 0,5738	y = 0,4222	Y = 4,23
CIELAB 1976	L* = 77,83	a* = 42,62	b* = 115,68
HUNTER	L = 61,56	a = 14,22	b = 141,59

Standard illuminant D65			
2° Observer	x = 0,5641	y = 0,4311	Y = 4,25
CIELAB 1976	L* = 69,61	a* = 41,53	b* = 115,44
HUNTER	L = 63,40	a = 13,39	b = 13,71
10° Observer	x = 0,5734	y = 0,4227	Y = 4,34
CIELAB 1976	L* = 78,10	a* = 45,64	b* = 114,66
HUNTER	L = 61,09	a = 15,43	b = 137,84