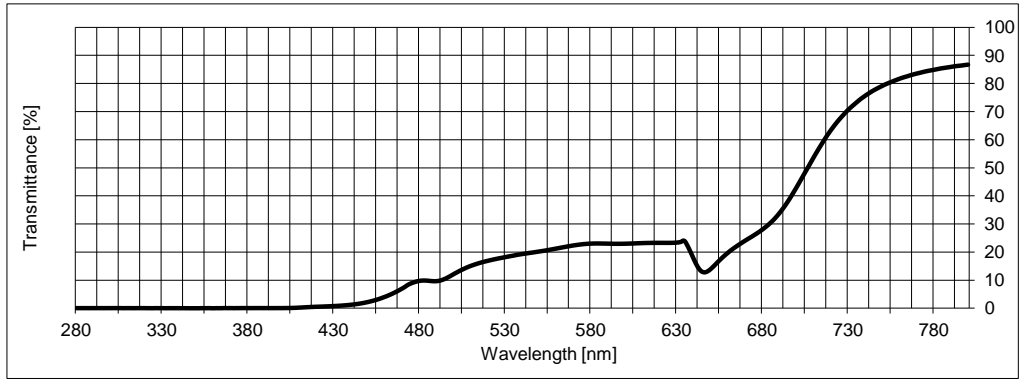


Wavelength [nm]	Transmission [%]
280	0,0
290	0,0
300	0,0
310	0,0
320	0,0
330	0,0
340	0,0
350	0,0
360	-0,1
370	0,0
380	0,0
390	0,0
400	0,0
410	0,2
420	0,5
430	0,7
440	1,2
450	2,1
460	4,0
470	6,9
480	9,7
490	9,6
500	12,1
510	15,0
520	16,8
530	18,1
540	19,2
550	20,2
560	21,2
570	22,3
580	23,0
590	23,0
600	22,9
610	23,1
620	23,2
630	23,3
640	17,6
650	13,9
660	19,7
670	24,0
680	27,9
690	33,8
700	43,0
710	53,7
720	63,4
730	70,5
740	75,6
750	79,1
760	81,7
770	83,5
780	84,8
790	85,9
800	86,7



European Standard		DIN EN 1836:2005+A1:2007 (D)		Pass
Luminous transmittance (D65) τ_v :		19,4%	Filter category: 2	Limit value
UV (280 - 380nm)	τ_{SUV} : 0,0%	100% UV-Absorption	$\tau_{F(\lambda)max}$ (280 - 315nm): 0,0%	Pass 1,9%
UVA (315 - 380nm)	τ_{SUVA} : 0,0%		$\tau_{F(\lambda)max}$ (315 - 350nm): 0,0%	Pass 19,4%
UVB (280 - 315nm)	τ_{SUB} : 0,0%		τ_{SUVAm} (315 - 380nm): 0,0%	Pass 19,4%
blue light (380 - 500nm)	τ_{sb} : 3,5%		spectral transmittance (500-650nm) τ_{Vmin} : 12,1%	Pass 3,9%
Signal transmittance:				
red	signal transmittance τ_{sig} : 22,2%		Recognition of signal light Q: 1,14	Pass 0,8
yellow	signal transmittance τ_{sig} : 22,0%		Recognition of signal light Q: 1,13	Pass 0,8
green	signal transmittance τ_{sig} : 18,1%		Recognition of signal light Q: 0,93	Pass 0,6
blue	signal transmittance τ_{sig} : 15,8%		Recognition of signal light Q: 0,81	Pass 0,4
transmission properties related to traffic signal recognition: Pass				

American Standard		ANSI Z80.3-2010		Fail
Luminous transmittance (C) τ_v :		19,4%	primary function: General Purpose lens or shield	shade: medium to dark
			Limit value	Limit value
			normal use	high exposure
UVA, mean Transmittance (315 - 380nm)	τ_{SUVA} : 0,0%	Pass	19,4%	Pass 9,7%
UVB, mean Transmittance (280 - 315nm)	τ_{SUB} : 0,0%	Pass	2,4%	Pass 0,2%
blue light (380 - 500nm)	τ_{sb} : 3,5%		spectral transmittance (475-650nm) τ_{Vmin} : 8,7%	Pass 3,9%
Signal transmittance:				
red	signal transmittance τ_{sig} : 21,2%	Pass	2°-Observer { D65 0,4203 0,4679 Yellow 0,5781 0,4208 Green 0,2655 0,5609	Fail Please refer to sheet "Farbort"
yellow	signal transmittance τ_{sig} : 22,0%	Pass		
green	signal transmittance τ_{sig} : 18,0%	Pass		
transmission properties related to traffic signal recognition: Fail				

Australian Standard		AS/NZS 1067:2003 / AMDT 1:2009		Fail
Luminous transmittance (D65) τ_v :		19,4%	Lens category: 2	Limit value
UV (280 - 380nm)	τ_{SUV} : 0,0%	100% UV-Absorption	$\tau_{F(\lambda)max}$ (280 - 315nm): 0,0%	Pass 1,0%
UVA (315 - 380nm)	τ_{SUVA} : 0,0%		$\tau_{F(\lambda)max}$ (315 - 350nm): 0,0%	Pass 19,4%
UVB (280 - 315nm)	τ_{SUB} : 0,0%		τ_{SUVAm} (315 - 380nm): 0,0%	Pass 19,4%
blue light (400 - 500nm)	τ_{sb} : 3,5%		spectral transmittance (450-650nm) τ_{Vmin} : 2,1%	Fail 3,9%
Signal transmittance:				
red	signal transmittance τ_{sig} : 22,2%		Recognition of signal light Q: 1,14	Pass 0,8
yellow	signal transmittance τ_{sig} : 22,0%		Recognition of signal light Q: 1,13	Pass 0,8
green	signal transmittance τ_{sig} : 18,1%		Recognition of signal light Q: 0,93	Pass 0,6
blue	signal transmittance τ_{sig} : 15,8%		Recognition of signal light Q: 0,81	Pass 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 = 0,5078	y = 0,4506	Y = 2,22
CIELAB 1976	L* = 52,52	a* = 2,55	b* = 42,74
HUNTER	L = 45,40	a = 0,72	b = 4,24
10° Observer	x = 0,5167	y = 0,4466	Y = 2,30
CIELAB 1976	L* = 52,12	a* = 3,94	b* = 45,11
HUNTER	L = 45,00	a = 1,15	b = 44,46

Standard illuminant C			
2° Observer	x = 0,4222	y = 0,4618	Y = 1,97
CIELAB 1976	L* = 49,66	a* = -6,66	b* = 46,70
HUNTER	L = 14,02	a = -1,65	b = 7,73
10° Observer	x = 0,4336	y = 0,4601	Y = 2,07
CIELAB 1976	L* = 49,48	a* = -3,03	b* = 47,50
HUNTER	L = 43,10	a = -0,79	b = 80,06

Standard illuminant D65			
2° Observer	x = 0,4203	y = 0,4679	Y = 2,05
CIELAB 1976	L* = 51,19	a* = -5,38	b* = 45,97
HUNTER	L = 44,08	a = -1,35	b = 7,52
10° Observer	x = 0,4322	y = 0,4659	Y = 2,16
CIELAB 1976	L* = 49,76	a* = -2,08	b* = 47,01
HUNTER	L = 43,15	a = -0,55	b = 78,19