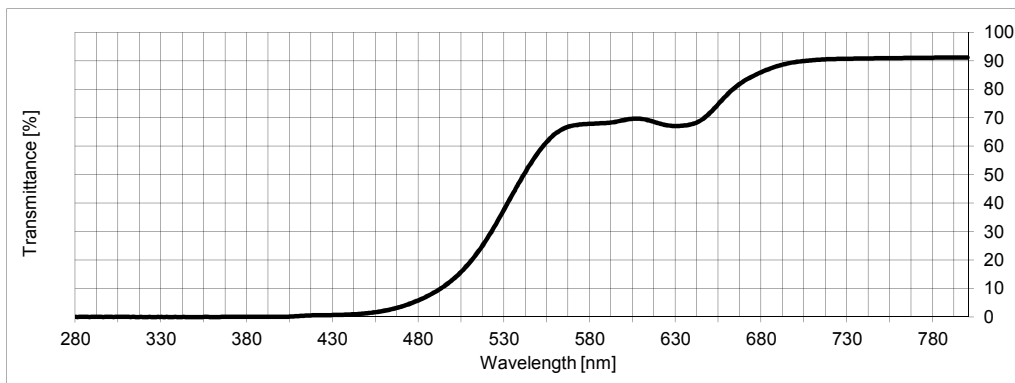


Wavelength [nm]	Transmission [%]
280	0,0
290	0,0
300	0,0
310	0,0
320	0,0
330	0,0
340	0,0
350	0,0
360	-0,1
370	0,0
380	0,0
390	0,0
400	0,0
410	0,3
420	0,6
430	0,7
440	0,9
450	1,3
460	2,2
470	3,7
480	5,9
490	8,9
500	13,2
510	19,3
520	27,6
530	38,0
540	48,7
550	58,0
560	64,5
570	67,2
580	67,8
590	68,1
600	69,2
610	69,5
620	68,0
630	67,1
640	67,8
650	71,7
660	78,2
670	83,0
680	86,0
690	88,3
700	89,5
710	90,2
720	90,5
730	90,7
740	90,8
750	90,9
760	90,9
770	91,0
780	91,0
790	91,1
800	91,1

**European Standard****DIN EN 1836:2005+A1:2007 (D)****Pass**

Luminous transmittance (D65) τ_V:		51,4%	Filter category: 1		Limit value
UV (280 - 380nm)	τ_{SUV} :	0,0%	100% UV-Absorption	$\tau_{F(\lambda)}max$ (280 - 315nm):	0,0% Pass 5,1%
UVA (315 - 380nm)	τ_{SUA} :	0,0%		$\tau_{F(\lambda)}max$ (315 - 350nm):	0,0% Pass 51,4%
UVB (280 - 315nm)	τ_{SUB} :	0,0%		τ_{SUAmax} (315 - 380nm):	0,0% Pass 51,4%
blue light (380 - 500nm)	τ_{sb} :	2,4%		spectral transmittance (500-650nm) τ_{Vmin} :	13,2% Pass 10,3%
Signal transmittance:					
red	signal transmittance τ_{sig} :	69,7%		Recognition of signal light Q:	1,36 Pass 0,8
yellow	signal transmittance τ_{sig} :	66,5%		Recognition of signal light Q:	1,29 Pass 0,8
green	signal transmittance τ_{sig} :	42,4%		Recognition of signal light Q:	0,83 Pass 0,6
blue	signal transmittance τ_{sig} :	32,4%		Recognition of signal light Q:	0,63 Pass 0,4
transmission properties related to traffic signal recognition: Pass					

American Standard**ANSI Z80.3-2010****Fail**

Luminous transmittance (C) τ_V :		51,8%	primary function:	Cosmetic lens or shield		shade:	light	
						Limit value	Limit value	
						normal use	high exposure	
UVA, mean Transmittance	(315 - 380nm) τ_{SUA} :	0,0%		Pass	51,8%	Pass	25,9%	
UVB, mean Transmittance	(280 - 315nm) τ_{SUB} :	0,0%		Pass	6,5%	Pass	0,5%	
blue light	(380 - 500nm) τ_{sb} :	2,4%		spectral transmittance (475-650nm) τ_{Vmin} :		4,7%	10,4%	
Signal transmittance:				Color Limits				
red	signal transmittance τ_{sig} :	70,7%	Pass	2°-Observer	x	y		
yellow	signal transmittance τ_{sig} :	66,6%	Pass		D65	0,4821	0,4835	Fail
green	signal transmittance τ_{sig} :	42,4%	Pass		Yellow	0,5834	0,4155	Pass
					Green	0,3278	0,6052	Fail
transmission properties related to traffic signal recognition: Fail								
Please refer to sheet "Farbort"								

Australian Standard**AS/NZS 1067:2003****Fail**

Luminous transmittance (D65) τ_V:		51,4%	Lens category: 1		Limit value
UV (280 - 380nm)	τ_{SUV} :	0,0%	100% UV-Absorption	$\tau_{F(\lambda)}max$ (280 - 315nm):	0,0% Pass 2,6%
UVA (315 - 380nm)	τ_{SUA} :	0,0%		$\tau_{F(\lambda)}max$ (315 - 350nm):	0,0% Pass 51,4%
UVB (280 - 315nm)	τ_{SUB} :	0,0%		τ_{SUAmax} (315 - 380nm):	0,0% Pass 51,4%
blue light (400 - 500nm)	τ_{sb} :	2,4%		spectral transmittance (450-650nm) τ_{Vmin} :	1,3% Fail 10,3%
Signal transmittance:					
red	signal transmittance τ_{sig} :	69,7%		Recognition of signal light Q:	1,36 Pass 0,8
yellow	signal transmittance τ_{sig} :	66,5%		Recognition of signal light Q:	1,29 Pass 0,8
green	signal transmittance τ_{sig} :	42,4%		Recognition of signal light Q:	0,83 Pass 0,6
blue	signal transmittance τ_{sig} :	32,4%		Recognition of signal light Q:	0,63 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	

Colormetric Observer according DIN 5033**Standard illuminant A**

2° Observer	x = 0,5424	y = 0,4445	Y = 6,25
CIELAB 1976	L* = 80,72	a* = 14,90	b* = 93,93
HUNTER	L = 76,13	a = 5,15	b = 8,81
10° Observer	x = 0,5514	y = 0,4380	Y = 6,41
CIELAB 1976	L* = 79,80	a* = 17,47	b* = 97,53
HUNTER	L = 75,06	a = 6,25	b = 90,12

Standard illuminant C

2° Observer	x = 0,4849	y = 0,4799	Y = 5,24
CIELAB 1976	L* = 78,09	a* = 4,03	b* = 97,02
HUNTER	L = 22,88	a = 1,22	b = 15,02
10° Observer	x = 0,4987	y = 0,4706	Y = 5,39
CIELAB 1976	L* = 77,65	a* = 11,33	b* = 96,88
HUNTER	L = 69,51	a = 3,61	b = 152,14

Standard illuminant D65

2° Observer	x = 0,4821	y = 0,4835	Y = 5,44
CIELAB 1976	L* = 76,95	a* = 6,50	b* = 95,71
HUNTER	L = 71,72	a = 1,99	b = 14,65
10° Observer	x = 0,4963	y = 0,4740	Y = 5,60
CIELAB 1976	L* = 77,99	a* = 13,16	b* = 95,97
HUNTER	L = 69,41	a = 4,24	b = 148,73