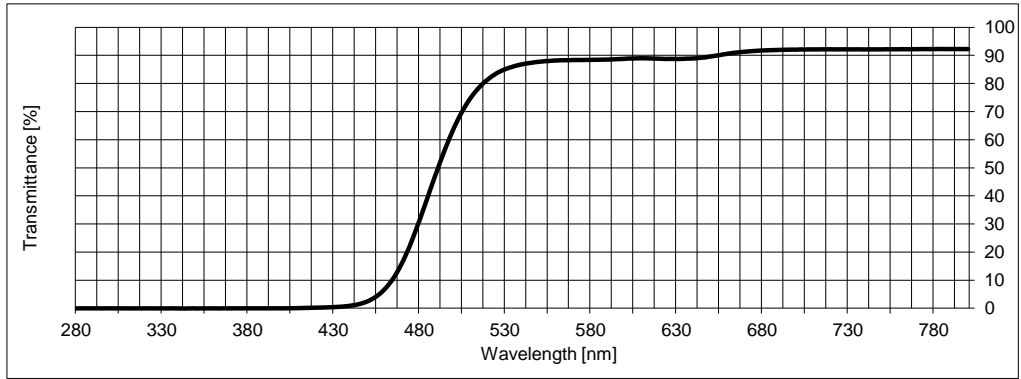


Wavelength [nm]	Transmission [%]
280	0,0
290	0,0
300	0,0
310	0,0
320	0,0
330	0,0
340	0,0
350	0,0
360	0,0
370	0,0
380	0,0
390	0,0
400	0,0
410	0,1
420	0,2
430	0,4
440	0,9
450	2,5
460	6,9
470	16,1
480	31,0
490	48,2
500	63,8
510	74,9
520	81,4
530	85,1
540	86,8
550	87,7
560	88,2
570	88,4
580	88,4
590	88,5
600	88,8
610	89,0
620	88,8
630	88,7
640	88,9
650	89,6
660	90,6
670	91,3
680	91,7
690	91,9
700	92,0
710	92,1
720	92,2
730	92,1
740	92,1
750	92,1
760	92,2
770	92,2
780	92,2
790	92,3
800	92,2



European Standard		DIN EN 1836:2005+A1:2007 (D)		Pass
Luminous transmittance (D65) τ_V :		82,3%	Filter category: 0	Limit value
UV (280 - 380nm)	τ_{SUV} : 0,0%	100% UV-Absorption	$\tau_{F(\lambda)max}$ (280 - 315nm): 0,0%	Pass 8,2%
UVA (315 - 380nm)	τ_{SUVA} : 0,0%		$\tau_{F(\lambda)max}$ (315 - 350nm): 0,0%	Pass 82,3%
UVB (280 - 315nm)	τ_{SUB} : 0,0%		τ_{SUVAm} (315 - 380nm): 0,0%	Pass 82,3%
blue light (380 - 500nm)	τ_{sb} : 9,5%		spectral transmittance (500-650nm) τ_{Vmin} : 63,8%	Pass 16,5%
Signal transmittance:				
red	signal transmittance τ_{sig} :	89,1%	Recognition of signal light Q:	1,08 Pass 0,8
yellow	signal transmittance τ_{sig} :	88,5%	Recognition of signal light Q:	1,08 Pass 0,8
green	signal transmittance τ_{sig} :	80,5%	Recognition of signal light Q:	0,98 Pass 0,6
blue	signal transmittance τ_{sig} :	68,8%	Recognition of signal light Q:	0,84 Pass 0,4
transmission properties related to traffic signal recognition: Pass				

American Standard		ANSI Z80.3-2010		Fail
Luminous transmittance (C) τ_V :		82,1%	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 82,1%	Pass 82,1%	Pass 41,1%
UVB, mean Transmittance (280 - 315nm)	τ_{SUB} : 0,0%	Pass 10,3%	Pass 10,3%	Pass 0,8%
blue light (380 - 500nm)	τ_{sb} : 9,5%	spectral transmittance (475-650nm) τ_{Vmin} : 22,9%	Pass 22,9%	Pass 16,4%
Signal transmittance:				
red	signal transmittance τ_{sig} :	89,3% Pass	2°-Observer {	Please refer to sheet "Farbort"
yellow	signal transmittance τ_{sig} :	88,5% Pass		
green	signal transmittance τ_{sig} :	79,9% Pass		
transmission properties related to traffic signal recognition: Fail				

Australian Standard		AS/NZS 1067:2003 / AMDT 1:2009		Fail
Luminous transmittance (D65) τ_V :		82,3%	Lens category: 0	Limit value
UV (280 - 380nm)	τ_{SUV} : 0,0%	100% UV-Absorption	$\tau_{F(\lambda)max}$ (280 - 315nm): 0,0%	Pass 4,1%
UVA (315 - 380nm)	τ_{SUVA} : 0,0%		$\tau_{F(\lambda)max}$ (315 - 350nm): 0,0%	Pass 82,3%
UVB (280 - 315nm)	τ_{SUB} : 0,0%		τ_{SUVAm} (315 - 380nm): 0,0%	Pass 82,3%
blue light (400 - 500nm)	τ_{sb} : 9,5%		spectral transmittance (450-650nm) τ_{Vmin} : 2,5%	Fail 16,5%
Signal transmittance:				
red	signal transmittance τ_{sig} :	89,1%	Recognition of signal light Q:	1,08 Pass 0,8
yellow	signal transmittance τ_{sig} :	88,5%	Recognition of signal light Q:	1,08 Pass 0,8
green	signal transmittance τ_{sig} :	80,5%	Recognition of signal light Q:	0,98 Pass 0,6
blue	signal transmittance τ_{sig} :	68,8%	Recognition of signal light Q:	0,84 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 = 0,5031	y = 0,4626	Y = 9,24	
CIELAB 1976	L* = 94,14	a* = -1,55	b* = 77,27	
HUNTER	L = 92,52	a = -0,55	b = 9,24	
10° Observer	x = 0,5126	y = 0,4590	Y = 9,58	
CIELAB 1976	L* = 93,53	a* = 0,75	b* = 83,07	
HUNTER	L = 91,75	a = 0,27	b = 97,50	

Standard illuminant C				
2° Observer	x = 0,4230	y = 0,4919	Y = 8,30	
CIELAB 1976	L* = 87,98	a* = -20,03	b* = 88,56	
HUNTER	L = 28,81	a = -6,19	b = 17,21	
10° Observer	x = 0,4361	y = 0,4907	Y = 8,75	
CIELAB 1976	L* = 87,81	a* = -13,70	b* = 91,39	
HUNTER	L = 88,57	a = -4,46	b = 179,00	

Standard illuminant D65				
2° Observer	x = 0,4195	y = 0,4978	Y = 8,70	
CIELAB 1976	L* = 92,70	a* = -18,37	b* = 87,27	
HUNTER	L = 90,71	a = -5,74	b = 16,79	
10° Observer	x = 0,4332	y = 0,4961	Y = 9,16	
CIELAB 1976	L* = 88,26	a* = -12,51	b* = 90,53	
HUNTER	L = 88,80	a = -4,12	b = 175,26	