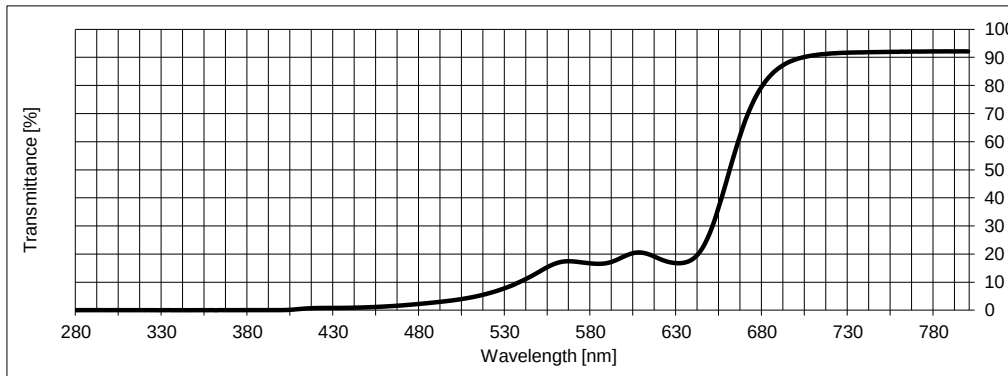


Wavelength [nm]	Transmission [%]
280	0,0
290	0,0
300	0,0
310	0,0
320	0,0
330	0,0
340	0,0
350	0,0
360	0,0
370	0,0
380	0,0
390	0,0
400	0,0
410	0,4
420	0,7
430	0,8
440	0,8
450	1,0
460	1,3
470	1,7
480	2,2
490	2,8
500	3,5
510	4,5
520	5,9
530	7,8
540	10,4
550	13,7
560	16,7
570	17,3
580	16,6
590	16,8
600	19,3
610	20,4
620	18,3
630	16,7
640	18,4
650	28,3
660	47,7
670	67,3
680	79,8
690	86,3
700	89,3
710	90,7
720	91,3
730	91,6
740	91,8
750	91,9
760	92,0
770	92,0
780	92,1
790	92,1
800	92,1



European Standard				DIN EN ISO 12312-1:2014-04			Pass
Luminous transmittance (D65) τ_v :		13,3%	Filter category: 3			Limit value	
UV	(280 - 380nm) τ_{SUV} :	0,0%	100% UV-Protection				
UVA	(315 - 380nm) τ_{SUA} :	0,0%	100% UVA-Protection		$\tau_{SUVAmax}$ (315 - 380nm): 0,0%	pass 13,3%	
UVB	(280 - 315nm) τ_{SUB} :	0,0%	100% UVB-Protection		$\tau_{SUBBmax}$ (280 - 315nm): 0,0%	pass 0,7%	
blue light	(380 - 500nm) τ_{sb} :	1,2%	spectral transmittance (475-650nm) τ_{Vmin} :		1,9%	Fail 2,7%	
Signal transmittance:							
red	signal transmittance τ_{sig} :	22,8%	Recognition of signal light Q:		1,72	Pass 0,8	
yellow	signal transmittance τ_{sig} :	18,8%	Recognition of signal light Q:		1,41	Pass 0,6	
green	signal transmittance τ_{sig} :	10,0%	Recognition of signal light Q:		0,75	Pass 0,6	
blue	signal transmittance τ_{sig} :	11,2%	Recognition of signal light Q:		0,85	Pass 0,6	
transmission properties related to traffic signal recognition: Fail							

American Standard				ANSI Z80.3-2010		Fail
Luminous transmittance (C) τ_v :		13,4%	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_{SUA} :	0,0%	Pass	13,4%	Pass	6,7%
UVB, mean Transmittance	(280 - 315nm) τ_{SUB} :	0,0%	Pass	1,7%	Pass	0,1%
blue light	(380 - 500nm) τ_{sb} :	1,2%	spectral transmittance (475-650nm) $\tau_{V min}$:		1,9%	Fail 2,7%
Signal transmittance:			Color Limits			
red	signal transmittance τ_{sig} :	27,1%	Pass	x y		
yellow	signal transmittance τ_{sig} :	18,7%	Pass	2°-Observer {	D65 0,4978 0,4485	Fail
green	signal transmittance τ_{sig} :	10,1%	Pass		Yellow 0,6044 0,3947	Pass
				Green 0,3304 0,5704	Fail	"Farbort"
transmission properties related to traffic signal recognition:						Fail

Australian Standard				AS/NZS 1067:2003 / AMDT 1:2009			Fail	
Luminous transmittance (D65) τ_v :		13,3%	Lens category: 3			Limit value		
UV	(280 - 380nm)	τ_{SUV} :	0,0%	100% UV-Absorption	$\tau_{F(A)max}$ (280 - 315nm):	0,0%	Pass	0,7%
UVA	(315 - 380nm)	τ_{SUA} :	0,0%		$\tau_{F(A)max}$ (315 - 350nm):	0,0%	Pass	6,6%
UVB	(280 - 315nm)	τ_{SUB} :	0,0%		τ_{SUAmax} (315 - 380nm):	0,0%	Pass	6,6%
blue light	(400 - 500nm)	τ_{sb} :	1,2%	spectral transmittance (450-650nm) $\tau_{V min}$:	1,0%	Fail		2,7%
Signal transmittance:								
red	signal transmittance τ_{sign} :	22,8%		Recognition of signal light Q:	1,72	Pass		0,8
yellow	signal transmittance τ_{sign} :	18,8%		Recognition of signal light Q:	1,41	Pass		0,8
green	signal transmittance τ_{sign} :	10,0%		Recognition of signal light Q:	0,75	Pass		0,6
blue	signal transmittance τ_{sign} :	11,2%		Recognition of signal light Q:	0,85	Pass		0,7

Demand on lenses for use by drivers at night (5.2.3.4):

Fail

Testreport Sunglasses

v = Pass

x = Fail

Quantity of Shipment	
Frame	
color correctness	v
surface / col.	v
soldering	
adjustment	v
nickel test	
form / dimension	v
Lenses	
color	v
size / form	v
opt. quality	v
UV-index / vertex power	v
polarisation	
decentration	
Impact Resistance Test	test quantity: passed: failed:
acc. to 21 CFR 801.410	acceptance no.: rejection no.:
random test	
Sign	
released	v
blocked	
separated	

Colorimetric Observer according DIN 5033

Standard illuminant A			
2° Observer	x = 0,5671	y = 0,4161	Y = 1,69
CIELAB 1976	L* = 46,57	a* = 20,12	b* = 55,66
HUNTER	L = 39,62	a = 5,81	b = 4,43
10° Observer	x = 0,5709	y = 0,4141	Y = 1,73
CIELAB 1976	L* = 45,93	a* = 19,86	b* = 56,72
HUNTER	L = 39,01	a = 5,89	b = 45,11

Standard illuminant C			
2° Observer	x = 0,4997	y = 0,4444	Y = 1,36
CIELAB 1976	L* = 46,15	a* = 11,98	b* = 53,83
HUNTER	L = 11,64	a = 3,00	b = 7,28
10° Observer	x = 0,5078	y = 0,4389	Y = 1,40
CIELAB 1976	L* = 45,49	a* = 14,87	b* = 52,92
HUNTER	L = 35,39	a = 3,90	b = 73,48

Standard illuminant D65			
2° Observer	x = 0,4978	y = 0,4485	Y = 1,40
CIELAB 1976	L* = 43,15	a* = 13,57	b* = 53,11
HUNTER	L = 36,41	a = 3,43	b = 7,08
10° Observer	x = 0,5063	y = 0,4428	Y = 1,44
CIELAB 1976	L* = 45,62	a* = 16,07	b* = 52,42
HUNTER	L = 35,26	a = 4,26	b = 71,64