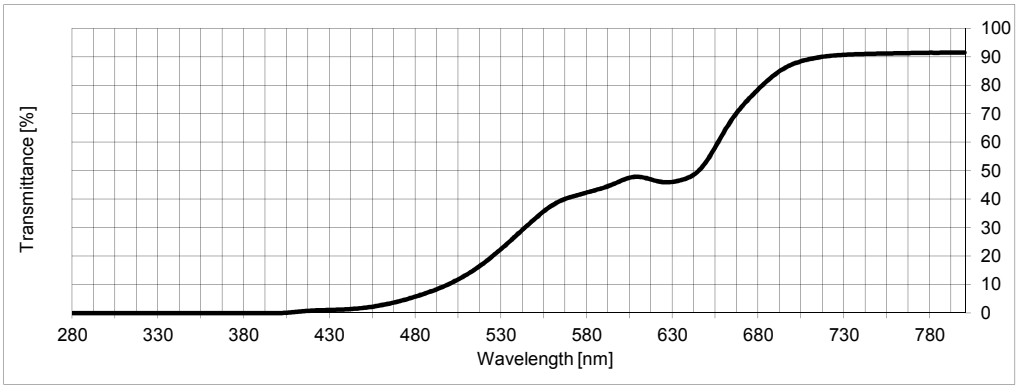
Art.-No.: **wellnessPROTECT 65**

Photospektrometer Testsheet

ESCHENBACH

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	0,9
430	1,1
440	1,3
450	1,8
460	2,8
470	4,1
480	5,8
490	7,8
500	10,4
510	13,6
520	17,7
530	22,6
540	28,0
550	33,4
560	38,0
570	40,7
580	42,4
590	44,1
600	46,5
610	47,8
620	46,4
630	46,1
640	47,8
650	53,7
660	63,9
670	72,4
680	78,7
690	84,0
700	87,4
710	89,2
720	90,2
730	90,7
740	90,9
750	91,1
760	91,2
770	91,3
780	91,4
790	91,4
800	91,4



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

Luminous transmittance (D65) τ_V:			**32,5%**			**Filter category:**	**2**		Limit value
UV	(280 - 380nm)	τ_{SUV}:	0,0%	100% UV-Absorption		$\tau_{F(\lambda)max}$ (280 - 315nm):	0,0%	Pass	3,2%
UVA	(315 - 380nm)	τ_{SUVA}:	0,0%			$\tau_{F(\lambda)max}$ (315 - 350nm):	0,0%	Pass	32,5%
UVB	(280 - 315nm)	τ_{SUVB}:	0,0%			$\tau_{SUVAmax}$ (315 - 380nm):	0,0%	Pass	32,5%
blue light	(380 - 500nm)	τ_{sb}:	2,6%			spectral transmittance (500-650nm) $\tau_{V\,min}$:	10,4%	Pass	6,5%
Signal transmittance:									
red	signal transmittance	τ_{sig}:	49,1%			Recognition of signal light Q:	1,51	Pass	0,8
yellow	signal transmittance	τ_{sig}:	43,3%			Recognition of signal light Q:	1,33	Pass	0,8
green	signal transmittance	τ_{sig}:	25,9%			Recognition of signal light Q:	0,80	Pass	0,6
blue	signal transmittance	τ_{sig}:	22,4%			Recognition of signal light Q:	0,69	Pass	0,4
						transmission properties related to traffic signal recognition:		Pass	

American Standard — ANSI Z80.3-2010 — Fail

Luminous transmittance (C) τ_V:			**32,7%**	**primary function:**		**General Purpose lens or shield**		**shade:**	**medium to dark**
						Limit value normal use			Limit value high exposure
UVA, mean Transmittance	(315 - 380nm)	τ_{SUVA}:	0,0%			Pass	32,7%	Pass	16,4%
UVB, mean Transmittance	(280 - 315nm)	τ_{SUVB}:	0,0%			Pass	4,1%	Pass	0,3%
blue light	(380 - 500nm)	τ_{sb}:	2,6%			spectral transmittance (475-650nm) $\tau_{V\,min}$:	4,9%	Fail	6,5%
Signal transmittance:					Color Limits	x	y		
red	signal transmittance	τ_{sig}:	52,0%	Pass	2°-Observer	D65	0,4849	0,4635	Fail	Please refer
yellow	signal transmittance	τ_{sig}:	43,2%	Pass		Yellow	0,5939	0,4051	Pass	to sheet
green	signal transmittance	τ_{sig}:	26,0%	Pass		Green	0,3213	0,5822	Fail	"Farbort"
						transmission properties related to traffic signal recognition:			Fail	

Australian Standard — AS/NZS 1067:2003 — Fail

Luminous transmittance (D65) τ_V:			**32,5%**			**Lens category:**	**2**		Limit value
UV	(280 - 380nm)	τ_{SUV}:	0,0%	100% UV-Absorption		$\tau_{F(\lambda)max}$ (280 - 315nm):	0,0%	Pass	1,6%
UVA	(315 - 380nm)	τ_{SUVA}:	0,0%			$\tau_{F(\lambda)max}$ (315 - 350nm):	0,0%	Pass	32,5%
UVB	(280 - 315nm)	τ_{SUVB}:	0,0%			$\tau_{SUVAmax}$ (315 - 380nm):	0,0%	Pass	32,5%
blue light	(400 - 500nm)	τ_{sb}:	2,7%			spectral transmittance (450-650nm) $\tau_{V\,min}$:	1,8%	Fail	6,5%
Signal transmittance:									
red	signal transmittance	τ_{sign}:	49,1%			Recognition of signal light Q:	1,51	Pass	0,8
yellow	signal transmittance	τ_{sign}:	43,3%			Recognition of signal light Q:	1,33	Pass	0,8
green	signal transmittance	τ_{sign}:	25,9%			Recognition of signal light Q:	0,80	Pass	0,6
blue	signal transmittance	τ_{sign}:	22,4%			Recognition of signal light Q:	0,69	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		

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 = 0,5517	y = 0,4306	Y = 4,02
CIELAB 1976	L*= 67,46	a*= 18,95	b*= 73,70
HUNTER	L = 61,03	a = 6,18	b = 6,81
10° Observer	x = 0,5583	y = 0,4264	Y = 4,13
CIELAB 1976	L*= 66,72	a*= 19,99	b*= 76,05
HUNTER	L = 60,22	a = 6,73	b = 69,74

Standard illuminant C			
2° Observer	x = 0,4871	y = 0,4594	Y = 3,31
CIELAB 1976	L*= 66,06	a*= 9,12	b*= 74,18
HUNTER	L = 18,19	a = 2,60	b = 11,48
10° Observer	x = 0,4979	y = 0,4531	Y = 3,42
CIELAB 1976	L*= 65,49	a*= 13,95	b*= 73,76
HUNTER	L = 55,40	a = 4,17	b = 116,50

Standard illuminant D65			
2° Observer	x = 0,4849	y = 0,4635	Y = 3,43
CIELAB 1976	L*= 63,75	a*= 11,22	b*= 73,19
HUNTER	L = 57,01	a = 3,23	b = 11,18
10° Observer	x = 0,4960	y = 0,4569	Y = 3,55
CIELAB 1976	L*= 65,75	a*= 15,53	b*= 73,08
HUNTER	L = 55,30	a = 4,70	b = 113,77