

S8022

Density	
ρ [g/cm ³]	2.77

Notes

Ionically colored glass
Bandpass filter
NVIS-Green A - 2 mm bandpass Filter
according to MIL-STD-3009

Reflection factor	
P_d	0.910

Bubble content	
Bubble class	1


Reference thickness	
d [mm]	2

Chemical Resistance	
FR class	0
SR class	4.0
AR class	3.0

Spectral values guaranteed	

Transformation temperature	
T _g [°C]	453

Thermal expansion	
$\alpha_{30/+70^\circ\text{C}}$ [10 ⁻⁶ /K]	7.8
$\alpha_{20/300^\circ\text{C}}$ [10 ⁻⁶ /K]	8.9
$\alpha_{20/200^\circ\text{C}}$ [10 ⁻⁶ /K]	

 Long-term changes of the polished surface are possible.

passed thermal shock test as per MIL-STD-202F method 107F, Condition A

Refractive Index n	
n_d (587.6 nm) = 1.555	

Temperature coefficient	
T _K [nm/°C]	

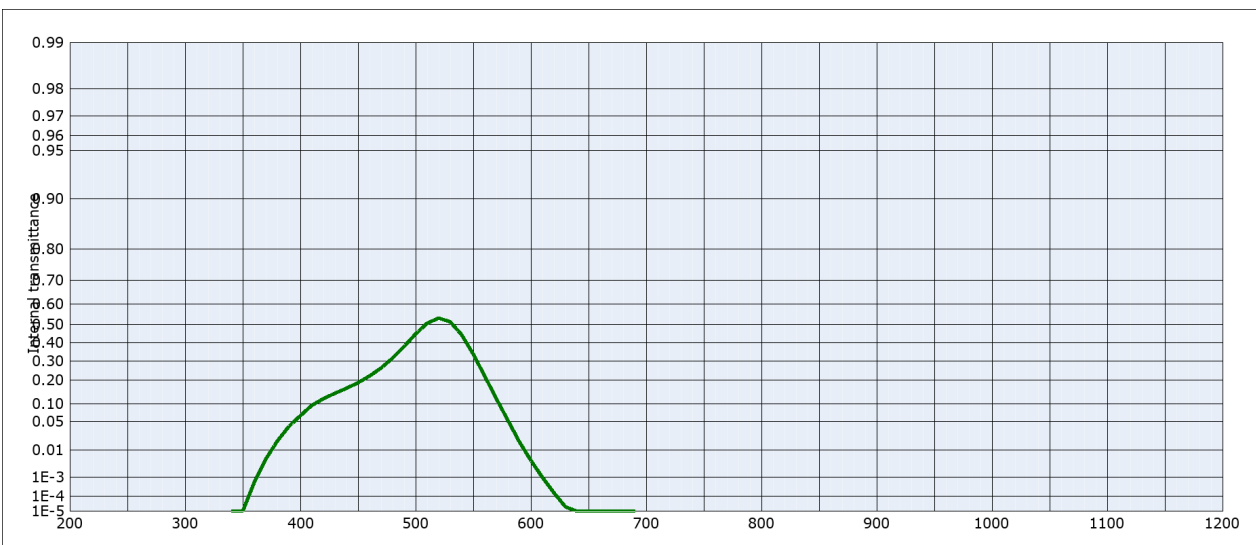
All data without tolerances are to be understood to be reference values. Guaranteed values are only those values listed in the section "Spectral values guaranteed".

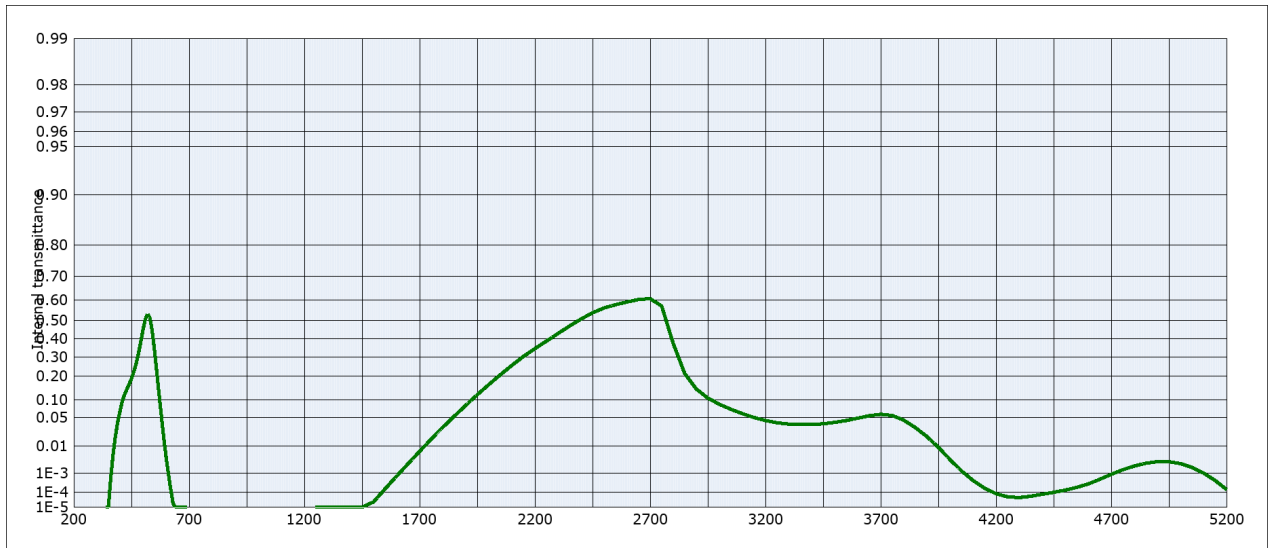
Colorimetric evaluation

Illuminant	A (Planck T = 2856 K)		
	1	2	3
d [mm]			
x	0.253	0.203	0.178
y	0.498	0.549	0.593
Y	30	16	9
λ_d [nm]	503	505	508
P_e	0.44	0.55	0.61

Illuminant	Planck T = 3200 K		
	1	2	3
d [mm]			
x	0.241	0.196	0.173
y	0.478	0.530	0.577
Y	31	16	10
λ_d [nm]	502	504	507
P_e	0.44	0.54	0.60

Illuminant	D65 (T _C = 6504 K)		
	1	2	3
d [mm]			
x	0.196	0.169	0.154
y	0.374	0.432	0.492
Y	37	21	12
λ_d [nm]	496	500	505
P_e	0.40	0.47	0.51





Internal transmittance τ_i at reference thickness $d = 2$ mm
The internal transmittance values, tabulated and graphically represented, are reference values only

λ [nm]	τ_i	λ [nm]	τ_i	λ [nm]	τ_i	λ [nm]	τ_i	λ [nm]	τ_i	λ [nm]	τ_i
200	$< 10^{-5}$	500	0.448	800	$< 10^{-5}$	1100	$< 10^{-5}$	2200	0.345	3700	$5.8 \cdot 10^{-2}$
210	$< 10^{-5}$	510	0.505	810	$< 10^{-5}$	1110	$< 10^{-5}$	2250	0.387	3750	$5.5 \cdot 10^{-2}$
220	$< 10^{-5}$	520	0.531	820	$< 10^{-5}$	1120	$< 10^{-5}$	2300	0.429	3800	$4.4 \cdot 10^{-2}$
230	$< 10^{-5}$	530	0.512	830	$< 10^{-5}$	1130	$< 10^{-5}$	2350	0.469	3850	$3.1 \cdot 10^{-2}$
240	$< 10^{-5}$	540	0.443	840	$< 10^{-5}$	1140	$< 10^{-5}$	2400	0.506	3900	$1.9 \cdot 10^{-2}$
250	$< 10^{-5}$	550	0.337	850	$< 10^{-5}$	1150	$< 10^{-5}$	2450	0.538	3950	$9.3 \cdot 10^{-3}$
260	$< 10^{-5}$	560	0.220	860	$< 10^{-5}$	1160	$< 10^{-5}$	2500	0.562	4000	$3.7 \cdot 10^{-3}$
270	$< 10^{-5}$	570	0.120	870	$< 10^{-5}$	1170	$< 10^{-5}$	2550	0.577	4050	$1.3 \cdot 10^{-3}$
280	$< 10^{-5}$	580	$5.3 \cdot 10^{-2}$	880	$< 10^{-5}$	1180	$< 10^{-5}$	2600	0.590	4100	$4.6 \cdot 10^{-4}$
290	$< 10^{-5}$	590	$1.7 \cdot 10^{-2}$	890	$< 10^{-5}$	1190	$< 10^{-5}$	2650	0.602	4150	$1.8 \cdot 10^{-4}$
300	$< 10^{-5}$	600	$4.7 \cdot 10^{-3}$	900	$< 10^{-5}$	1200	$< 10^{-5}$	2700	0.606	4200	$8.4 \cdot 10^{-5}$
310	$< 10^{-5}$	610	$9.9 \cdot 10^{-4}$	910	$< 10^{-5}$	1250	$< 10^{-5}$	2750	0.571	4250	$5.4 \cdot 10^{-5}$
320	$< 10^{-5}$	620	$1.6 \cdot 10^{-4}$	920	$< 10^{-5}$	1300	$< 10^{-5}$	2800	0.374	4300	$4.8 \cdot 10^{-5}$
330	$< 10^{-5}$	630	$2.1 \cdot 10^{-5}$	930	$< 10^{-5}$	1350	$< 10^{-5}$	2850	0.213	4350	$5.8 \cdot 10^{-5}$
340	$< 10^{-5}$	640	$< 10^{-5}$	940	$< 10^{-5}$	1400	$< 10^{-5}$	2900	0.142	4400	$7.8 \cdot 10^{-5}$
350	$< 10^{-5}$	650	$< 10^{-5}$	950	$< 10^{-5}$	1450	$< 10^{-5}$	2950	0.107	4450	$1.0 \cdot 10^{-4}$
360	$5.7 \cdot 10^{-4}$	660	$< 10^{-5}$	960	$< 10^{-5}$	1500	$2.4 \cdot 10^{-5}$	3000	$8.6 \cdot 10^{-2}$	4500	$1.4 \cdot 10^{-4}$
370	$5.2 \cdot 10^{-3}$	670	$< 10^{-5}$	970	$< 10^{-5}$	1550	$1.6 \cdot 10^{-4}$	3050	$7.1 \cdot 10^{-2}$	4550	$2.0 \cdot 10^{-4}$
380	$1.8 \cdot 10^{-2}$	680	$< 10^{-5}$	980	$< 10^{-5}$	1600	$7.4 \cdot 10^{-4}$	3100	$5.9 \cdot 10^{-2}$	4600	$3.0 \cdot 10^{-4}$
390	$4.0 \cdot 10^{-2}$	690	$< 10^{-5}$	990	$< 10^{-5}$	1650	$2.5 \cdot 10^{-3}$	3150	$5.0 \cdot 10^{-2}$	4650	$5.2 \cdot 10^{-4}$
400	$6.5 \cdot 10^{-2}$	700	$< 10^{-5}$	1000	$< 10^{-5}$	1700	$6.9 \cdot 10^{-3}$	3200	$4.4 \cdot 10^{-2}$	4700	$9.0 \cdot 10^{-4}$
410	$9.6 \cdot 10^{-2}$	710	$< 10^{-5}$	1010	$< 10^{-5}$	1750	$1.6 \cdot 10^{-2}$	3250	$3.9 \cdot 10^{-2}$	4750	$1.4 \cdot 10^{-3}$
420	0.120	720	$< 10^{-5}$	1020	$< 10^{-5}$	1800	$3.1 \cdot 10^{-2}$	3300	$3.7 \cdot 10^{-2}$	4800	$2.0 \cdot 10^{-3}$
430	0.141	730	$< 10^{-5}$	1030	$< 10^{-5}$	1850	$5.3 \cdot 10^{-2}$	3350	$3.6 \cdot 10^{-2}$	4850	$2.6 \cdot 10^{-3}$
440	0.163	740	$< 10^{-5}$	1040	$< 10^{-5}$	1900	$8.3 \cdot 10^{-2}$	3400	$3.6 \cdot 10^{-2}$	4900	$3.0 \cdot 10^{-3}$
450	0.188	750	$< 10^{-5}$	1050	$< 10^{-5}$	1950	0.120	3450	$3.7 \cdot 10^{-2}$	4950	$3.0 \cdot 10^{-3}$
460	0.221	760	$< 10^{-5}$	1060	$< 10^{-5}$	2000	0.162	3500	$4.0 \cdot 10^{-2}$	5000	$2.5 \cdot 10^{-3}$
470	0.262	770	$< 10^{-5}$	1070	$< 10^{-5}$	2050	0.207	3550	$4.4 \cdot 10^{-2}$	5050	$1.8 \cdot 10^{-3}$
480	0.316	780	$< 10^{-5}$	1080	$< 10^{-5}$	2100	0.255	3600	$4.9 \cdot 10^{-2}$	5100	$1.0 \cdot 10^{-3}$
490	0.380	790	$< 10^{-5}$	1090	$< 10^{-5}$	2150	0.302	3650	$5.4 \cdot 10^{-2}$	5150	$4.6 \cdot 10^{-4}$