

S8023

Density	
ρ [g/cm ³]	2.75

Notes

Ionically colored glass
Bandpass filter
NVIS-Green A - 3 mm bandpass Filter
according to MIL-STD-3009

Reflection factor	
P_d	0.913

Bubble content	
Bubble class	1

Reference thickness	
d [mm]	3

Chemical Resistance	
FR class	0
SR class	4.0
AR class	3.0

Spectral values guaranteed	

Transformation temperature	
T_g [°C]	444

Thermal expansion	
$\alpha_{30/+70^\circ\text{C}}$ [10 ⁻⁶ /K]	
$\alpha_{20/300^\circ\text{C}}$ [10 ⁻⁶ /K]	
$\alpha_{20/200^\circ\text{C}}$ [10 ⁻⁶ /K]	9.7

Long-term changes of the polished surface are possible.

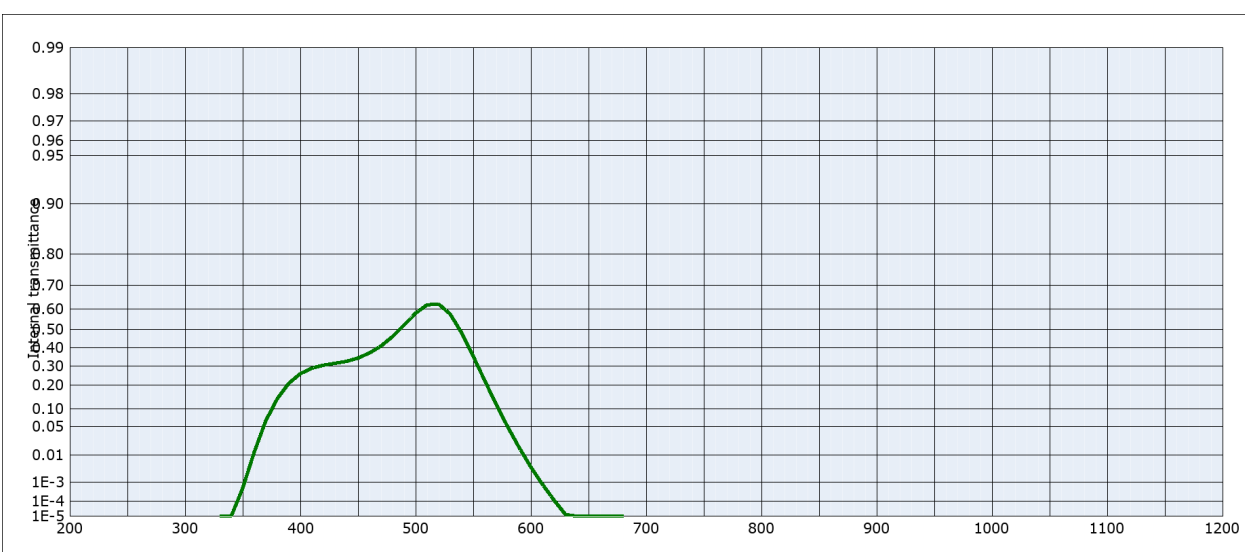
Refractive Index n	
n_d (587.6 nm) = 1.541	

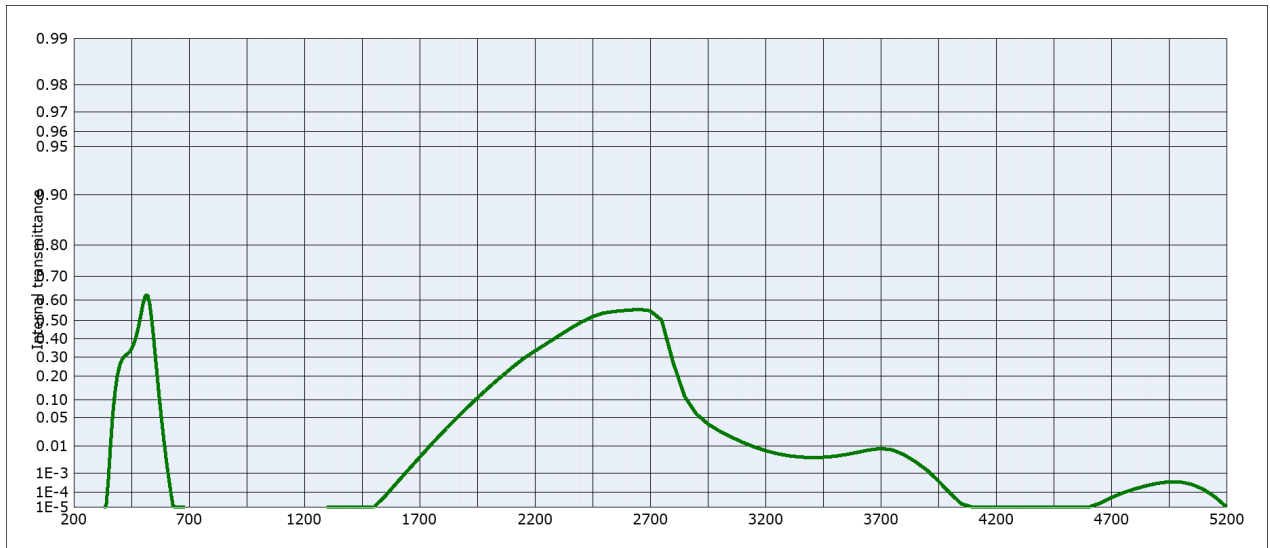
Temperature coefficient	
T_K [nm/°C]	

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

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)			Illuminant	Planck T = 3200 K			Illuminant	D65 (T _c = 6504 K)			
	d [mm]	1	2		3	d [mm]	1		2	3	d [mm]	1
x	0.277	0.218	0.189	x	0.262	0.209	0.182	x	0.206	0.176	0.160	
y	0.459	0.474	0.486	y	0.437	0.449	0.460	y	0.328	0.334	0.346	
Y	41	27	19	Y	43	28	21	Y	51	35	26	
λ_d [nm]	500	500	500	λ_d [nm]	498	498	499	λ_d [nm]	491	492	493	
P_e	0.39	0.52	0.59	P_e	0.39	0.52	0.59	P_e	0.39	0.50	0.54	





Internal transmittance τ_i at reference thickness $d = 3$ 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	0.580	800	$< 10^{-5}$	1100	$< 10^{-5}$	2200	0.332	3700	$8.5 \cdot 10^{-3}$
210	$< 10^{-5}$	510	0.619	810	$< 10^{-5}$	1110	$< 10^{-5}$	2250	0.373	3750	$7.8 \cdot 10^{-3}$
220	$< 10^{-5}$	520	0.622	820	$< 10^{-5}$	1120	$< 10^{-5}$	2300	0.414	3800	$5.4 \cdot 10^{-3}$
230	$< 10^{-5}$	530	0.575	830	$< 10^{-5}$	1130	$< 10^{-5}$	2350	0.453	3850	$3.0 \cdot 10^{-3}$
240	$< 10^{-5}$	540	0.480	840	$< 10^{-5}$	1140	$< 10^{-5}$	2400	0.489	3900	$1.4 \cdot 10^{-3}$
250	$< 10^{-5}$	550	0.353	850	$< 10^{-5}$	1150	$< 10^{-5}$	2450	0.519	3950	$4.3 \cdot 10^{-4}$
260	$< 10^{-5}$	560	0.222	860	$< 10^{-5}$	1160	$< 10^{-5}$	2500	0.537	4000	$9.2 \cdot 10^{-5}$
270	$< 10^{-5}$	570	0.116	870	$< 10^{-5}$	1170	$< 10^{-5}$	2550	0.545	4050	$1.8 \cdot 10^{-5}$
280	$< 10^{-5}$	580	$4.9 \cdot 10^{-2}$	880	$< 10^{-5}$	1180	$< 10^{-5}$	2600	0.550	4100	$< 10^{-5}$
290	$< 10^{-5}$	590	$1.6 \cdot 10^{-2}$	890	$< 10^{-5}$	1190	$< 10^{-5}$	2650	0.555	4150	$< 10^{-5}$
300	$< 10^{-5}$	600	$4.1 \cdot 10^{-3}$	900	$< 10^{-5}$	1200	$< 10^{-5}$	2700	0.548	4200	$< 10^{-5}$
310	$< 10^{-5}$	610	$8.1 \cdot 10^{-4}$	910	$< 10^{-5}$	1250	$< 10^{-5}$	2750	0.499	4250	$< 10^{-5}$
320	$< 10^{-5}$	620	$1.2 \cdot 10^{-4}$	920	$< 10^{-5}$	1300	$< 10^{-5}$	2800	0.269	4300	$< 10^{-5}$
330	$< 10^{-5}$	630	$1.4 \cdot 10^{-5}$	930	$< 10^{-5}$	1350	$< 10^{-5}$	2850	0.112	4350	$< 10^{-5}$
340	$< 10^{-5}$	640	$< 10^{-5}$	940	$< 10^{-5}$	1400	$< 10^{-5}$	2900	$5.9 \cdot 10^{-2}$	4400	$< 10^{-5}$
350	$5.3 \cdot 10^{-4}$	650	$< 10^{-5}$	950	$< 10^{-5}$	1450	$< 10^{-5}$	2950	$3.7 \cdot 10^{-2}$	4450	$< 10^{-5}$
360	$1.2 \cdot 10^{-2}$	660	$< 10^{-5}$	960	$< 10^{-5}$	1500	$< 10^{-5}$	3000	$2.6 \cdot 10^{-2}$	4500	$< 10^{-5}$
370	$6.4 \cdot 10^{-2}$	670	$< 10^{-5}$	970	$< 10^{-5}$	1550	$5.8 \cdot 10^{-5}$	3050	$1.8 \cdot 10^{-2}$	4550	$< 10^{-5}$
380	0.140	680	$< 10^{-5}$	980	$< 10^{-5}$	1600	$3.3 \cdot 10^{-4}$	3100	$1.3 \cdot 10^{-2}$	4600	$< 10^{-5}$
390	0.210	690	$< 10^{-5}$	990	$< 10^{-5}$	1650	$1.4 \cdot 10^{-3}$	3150	$9.6 \cdot 10^{-3}$	4650	$1.9 \cdot 10^{-5}$
400	0.259	700	$< 10^{-5}$	1000	$< 10^{-5}$	1700	$4.4 \cdot 10^{-3}$	3200	$7.3 \cdot 10^{-3}$	4700	$4.7 \cdot 10^{-5}$
410	0.288	710	$< 10^{-5}$	1010	$< 10^{-5}$	1750	$1.1 \cdot 10^{-2}$	3250	$5.8 \cdot 10^{-3}$	4750	$9.5 \cdot 10^{-5}$
420	0.304	720	$< 10^{-5}$	1020	$< 10^{-5}$	1800	$2.4 \cdot 10^{-2}$	3300	$4.9 \cdot 10^{-3}$	4800	$1.6 \cdot 10^{-4}$
430	0.314	730	$< 10^{-5}$	1030	$< 10^{-5}$	1850	$4.4 \cdot 10^{-2}$	3350	$4.5 \cdot 10^{-3}$	4850	$2.4 \cdot 10^{-4}$
440	0.325	740	$< 10^{-5}$	1040	$< 10^{-5}$	1900	$7.2 \cdot 10^{-2}$	3400	$4.3 \cdot 10^{-3}$	4900	$3.3 \cdot 10^{-4}$
450	0.343	750	$< 10^{-5}$	1050	$< 10^{-5}$	1950	0.107	3450	$4.4 \cdot 10^{-3}$	4950	$3.9 \cdot 10^{-4}$
460	0.372	760	$< 10^{-5}$	1060	$< 10^{-5}$	2000	0.149	3500	$4.7 \cdot 10^{-3}$	5000	$3.8 \cdot 10^{-4}$
470	0.410	770	$< 10^{-5}$	1070	$< 10^{-5}$	2050	0.195	3550	$5.4 \cdot 10^{-3}$	5050	$2.8 \cdot 10^{-4}$
480	0.461	780	$< 10^{-5}$	1080	$< 10^{-5}$	2100	0.243	3600	$6.4 \cdot 10^{-3}$	5100	$1.5 \cdot 10^{-4}$
490	0.521	790	$< 10^{-5}$	1090	$< 10^{-5}$	2150	0.291	3650	$7.7 \cdot 10^{-3}$	5150	$5.3 \cdot 10^{-5}$