

GG420

Reflection factor	
P_d	0.92

Reference thickness	
d [mm]	3

Spectral values guaranteed	
λ_c ($\tau_i = 0.50$) [nm]	= 420 ± 6
λ_s ($\tau_{is} = 1 \cdot 10^{-5}$) [nm]	= 360
λ_p ($\tau_{ip} = 0.93$) [nm]	= 530

Refractive index n		
λ [nm]	Element	n
546	Hg	1.53
587.6	He	1.52
852.1	Cs	1.52
1014	Hg	1.51

Density	
ρ [g/cm ³]	2.55

Bubble content	
Bubble class	3

Chemical resistance	
FR class	0
SR class	1.0
AR class	1.0

Transformation temperature	
T_g [°C]	535

Thermal expansion	
$\alpha_{-30/+70^\circ\text{C}}$ [10 ⁻⁶ /K]	7.8
$\alpha_{20/300^\circ\text{C}}$ [10 ⁻⁶ /K]	9.0
$\alpha_{20/200^\circ\text{C}}$ [10 ⁻⁶ /K]	

Temperature coefficient	
T_k [nm/°C]	0.07

Notes

Colloidally colored glass

Long pass filter

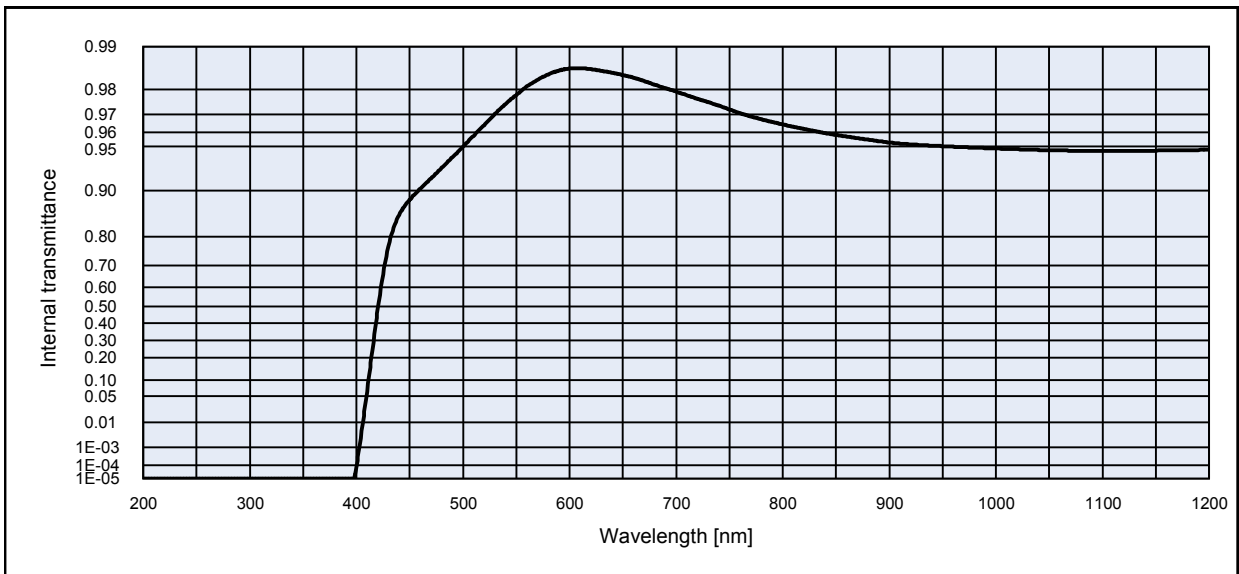
All data without tolerances are to be understood to be reference values. Guaranteed values are only those values listed in the section "Spectral values guaranteed".

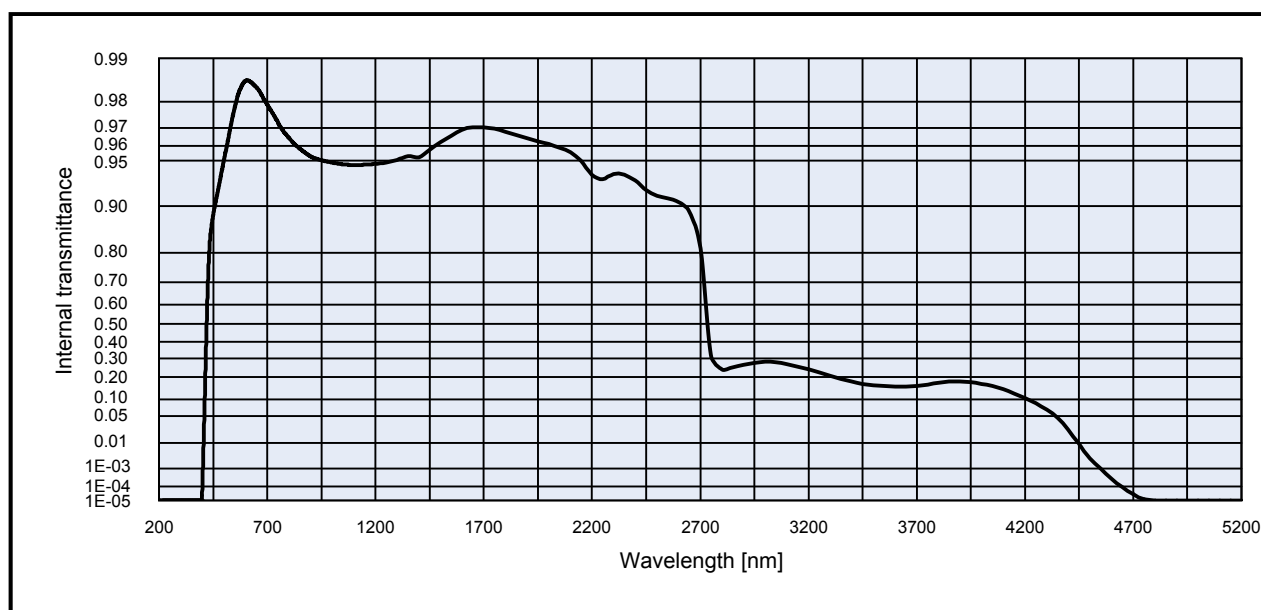
Colorimetric evaluation

Illuminant	A (Planck T = 2856 K)		
	1	2	3
d [mm]			
x	0.450	0.453	0.455
y	0.410	0.412	0.414
Y	91	90	90
λ_d [nm]	581	581	581
P_e	0.04	0.07	0.10

Illuminant	Planck T = 3200 K		
	1	2	3
d [mm]			
x	0.426	0.429	0.432
y	0.403	0.405	0.408
Y	91	90	90
λ_d [nm]	579	579	579
P_e	0.04	0.07	0.10

Illuminant	D65 ($T_c = 6504$ K)		
	1	2	3
d [mm]			
x	0.317	0.320	0.324
y	0.337	0.342	0.348
Y	91	90	89
λ_d [nm]	569	570	570
P_e	0.03	0.06	0.08





Internal transmittance τ_i at reference thickness d [mm] = 3

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	< 1.0E-05	500	9.5E-01	800	9.6E-01	1100	9.5E-01	2200	9.4E-01	3700	1.6E-01
210	< 1.0E-05	510	9.6E-01	810	9.6E-01	1110	9.5E-01	2250	9.3E-01	3750	1.6E-01
220	< 1.0E-05	520	9.6E-01	820	9.6E-01	1120	9.5E-01	2300	9.4E-01	3800	1.7E-01
230	< 1.0E-05	530	9.7E-01	830	9.6E-01	1130	9.5E-01	2350	9.4E-01	3850	1.8E-01
240	< 1.0E-05	540	9.7E-01	840	9.6E-01	1140	9.5E-01	2400	9.3E-01	3900	1.8E-01
250	< 1.0E-05	550	9.8E-01	850	9.6E-01	1150	9.5E-01	2450	9.2E-01	3950	1.7E-01
260	< 1.0E-05	560	9.8E-01	860	9.6E-01	1160	9.5E-01	2500	9.1E-01	4000	1.7E-01
270	< 1.0E-05	570	9.8E-01	870	9.6E-01	1170	9.5E-01	2550	9.1E-01	4050	1.6E-01
280	< 1.0E-05	580	9.8E-01	880	9.6E-01	1180	9.5E-01	2600	9.1E-01	4100	1.4E-01
290	< 1.0E-05	590	9.9E-01	890	9.5E-01	1190	9.5E-01	2650	8.9E-01	4150	1.2E-01
300	< 1.0E-05	600	9.9E-01	900	9.5E-01	1200	9.5E-01	2700	8.1E-01	4200	1.1E-01
310	< 1.0E-05	610	9.9E-01	910	9.5E-01	1250	9.5E-01	2750	3.2E-01	4250	8.6E-02
320	< 1.0E-05	620	9.9E-01	920	9.5E-01	1300	9.5E-01	2800	2.4E-01	4300	6.6E-02
330	< 1.0E-05	630	9.9E-01	930	9.5E-01	1350	9.5E-01	2850	2.5E-01	4350	4.6E-02
340	< 1.0E-05	640	9.8E-01	940	9.5E-01	1400	9.5E-01	2900	2.7E-01	4400	2.4E-02
350	< 1.0E-05	650	9.8E-01	950	9.5E-01	1450	9.6E-01	2950	2.8E-01	4450	9.5E-03
360	< 1.0E-05	660	9.8E-01	960	9.5E-01	1500	9.6E-01	3000	2.8E-01	4500	2.9E-03
370	< 1.0E-05	670	9.8E-01	970	9.5E-01	1550	9.7E-01	3050	2.8E-01	4550	9.8E-04
380	< 1.0E-05	680	9.8E-01	980	9.5E-01	1600	9.7E-01	3100	2.7E-01	4600	3.0E-04
390	< 1.0E-05	690	9.8E-01	990	9.5E-01	1650	9.7E-01	3150	2.6E-01	4650	9.5E-05
400	7.0E-05	700	9.8E-01	1000	9.5E-01	1700	9.7E-01	3200	2.4E-01	4700	3.1E-05
410	6.1E-02	710	9.8E-01	1010	9.5E-01	1750	9.7E-01	3250	2.2E-01	4750	1.3E-05
420	4.8E-01	720	9.8E-01	1020	9.5E-01	1800	9.7E-01	3300	2.1E-01	4800	< 1.0E-05
430	7.7E-01	730	9.8E-01	1030	9.5E-01	1850	9.7E-01	3350	1.9E-01	4850	< 1.0E-05
440	8.6E-01	740	9.7E-01	1040	9.5E-01	1900	9.6E-01	3400	1.8E-01	4900	< 1.0E-05
450	8.8E-01	750	9.7E-01	1050	9.5E-01	1950	9.6E-01	3450	1.6E-01	4950	< 1.0E-05
460	9.0E-01	760	9.7E-01	1060	9.5E-01	2000	9.6E-01	3500	1.6E-01	5000	< 1.0E-05
470	9.2E-01	770	9.7E-01	1070	9.5E-01	2050	9.6E-01	3550	1.6E-01	5050	< 1.0E-05
480	9.3E-01	780	9.7E-01	1080	9.5E-01	2100	9.6E-01	3600	1.5E-01	5100	< 1.0E-05
490	9.4E-01	790	9.7E-01	1090	9.5E-01	2150	9.5E-01	3650	1.5E-01	5150	< 1.0E-05