

NG9

Reflection factor	
P_d	0.92

Reference thickness	
d [mm]	1

Spectral values guaranteed	
τ_i (405 nm)	= 0.025 ± 0.01
τ_i (546 nm)	= 0.04 ± 0.02
τ_i (694 nm)	= 0.08 ± 0.02

Refractive index n		
λ [nm]	Element	n
587.6	He	1.51

Density	
ρ [g/cm ³]	2.45

Bubble content	
Bubble class	2

Chemical resistance	
FR class	1
SR class	3.2
AR class	2.0

Transformation temperature	
T_g [°C]	470

Thermal expansion	
$\alpha_{-30/+70^\circ\text{C}}$ [10 ⁻⁶ /K]	6.4
$\alpha_{20/300^\circ\text{C}}$ [10 ⁻⁶ /K]	7.2
$\alpha_{20/200^\circ\text{C}}$ [10 ⁻⁶ /K]	

Temperature coefficient	
T_k [nm/°C]	

Notes

Ionically colored glass

Neutral density filter

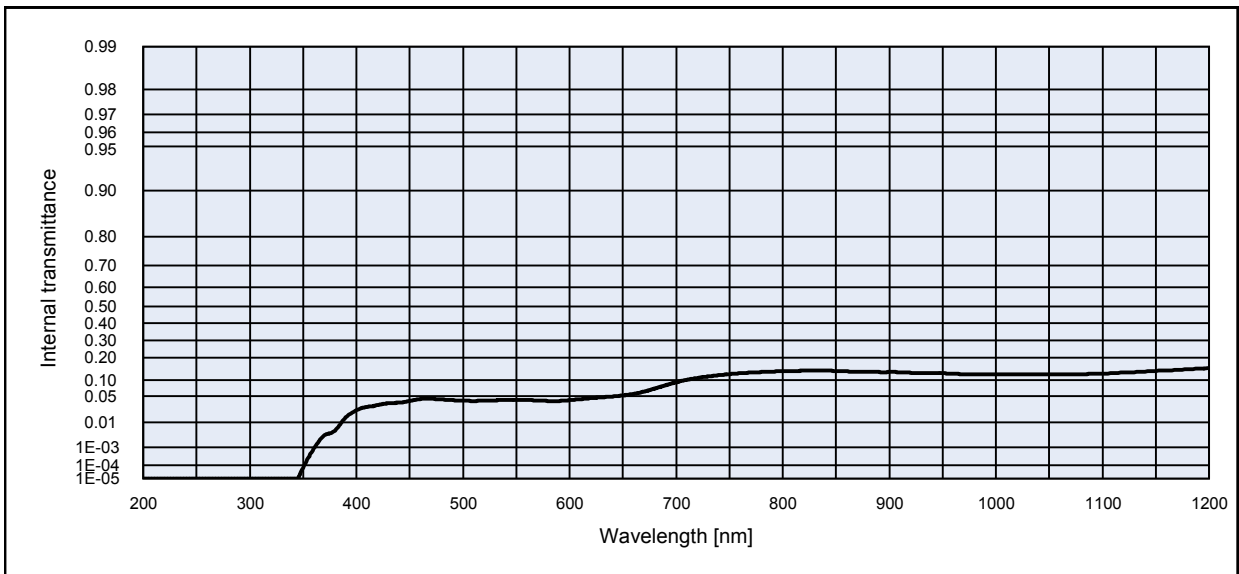
All data without tolerances are to be understood to be reference values. Guaranteed values are only those values listed in the section "Spectral values guaranteed".

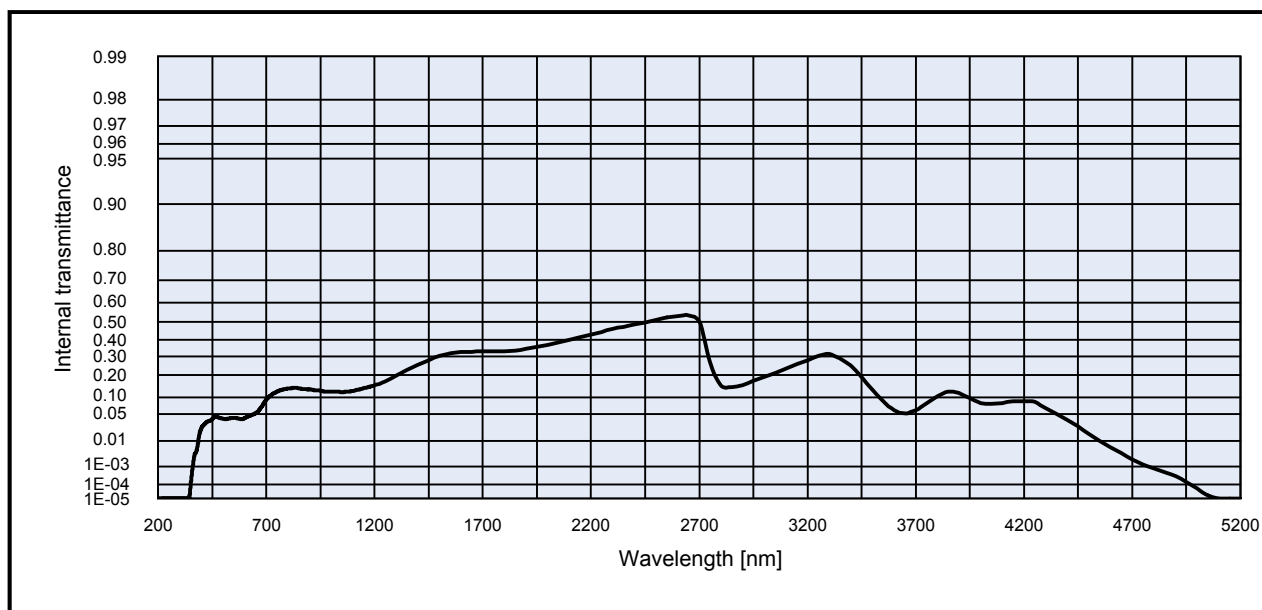
Colorimetric evaluation

Illuminant	A (Planck T = 2856 K)			
	d [mm]	1	2	3
x				
y				
Y				
λ_d [nm]				
P_e				

Illuminant	Planck T = 3200 K			
	d [mm]	1	2	3
x				
y				
Y				
λ_d [nm]				
P_e				

Illuminant	D65 (T _c = 6504 K)			
	d [mm]	1	2	3
x				
y				
Y				
λ_d [nm]				
P_e				





Internal transmittance τ_i at reference thickness d [mm] = 1
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	4.0E-02	800	1.4E-01	1100	1.3E-01	2200	4.3E-01	3700	6.0E-02
210	< 1.0E-05	510	3.9E-02	810	1.4E-01	1110	1.3E-01	2250	4.4E-01	3750	8.1E-02
220	< 1.0E-05	520	3.9E-02	820	1.4E-01	1120	1.3E-01	2300	4.6E-01	3800	1.1E-01
230	< 1.0E-05	530	4.0E-02	830	1.4E-01	1130	1.3E-01	2350	4.7E-01	3850	1.2E-01
240	< 1.0E-05	540	4.1E-02	840	1.4E-01	1140	1.3E-01	2400	4.9E-01	3900	1.2E-01
250	< 1.0E-05	550	4.2E-02	850	1.4E-01	1150	1.4E-01	2450	5.0E-01	3950	9.9E-02
260	< 1.0E-05	560	4.1E-02	860	1.3E-01	1160	1.4E-01	2500	5.1E-01	4000	8.0E-02
270	< 1.0E-05	570	4.0E-02	870	1.3E-01	1170	1.4E-01	2550	5.3E-01	4050	7.8E-02
280	< 1.0E-05	580	3.9E-02	880	1.3E-01	1180	1.4E-01	2600	5.3E-01	4100	8.0E-02
290	< 1.0E-05	590	3.9E-02	890	1.3E-01	1190	1.5E-01	2650	5.3E-01	4150	8.6E-02
300	< 1.0E-05	600	4.1E-02	900	1.3E-01	1200	1.5E-01	2700	5.0E-01	4200	8.6E-02
310	< 1.0E-05	610	4.3E-02	910	1.3E-01	1250	1.7E-01	2750	2.7E-01	4250	8.4E-02
320	< 1.0E-05	620	4.5E-02	920	1.3E-01	1300	2.0E-01	2800	1.5E-01	4300	6.5E-02
330	< 1.0E-05	630	4.7E-02	930	1.3E-01	1350	2.3E-01	2850	1.4E-01	4350	5.0E-02
340	< 1.0E-05	640	4.9E-02	940	1.3E-01	1400	2.5E-01	2900	1.5E-01	4400	3.7E-02
350	6.4E-05	650	5.2E-02	950	1.3E-01	1450	2.8E-01	2950	1.7E-01	4450	2.6E-02
360	8.5E-04	660	5.5E-02	960	1.2E-01	1500	3.1E-01	3000	1.9E-01	4500	1.6E-02
370	3.4E-03	670	6.2E-02	970	1.2E-01	1550	3.2E-01	3050	2.1E-01	4550	1.0E-02
380	5.3E-03	680	7.0E-02	980	1.2E-01	1600	3.3E-01	3100	2.3E-01	4600	6.2E-03
390	1.5E-02	690	8.1E-02	990	1.2E-01	1650	3.3E-01	3150	2.6E-01	4650	3.8E-03
400	2.3E-02	700	9.1E-02	1000	1.2E-01	1700	3.3E-01	3200	2.8E-01	4700	2.1E-03
410	2.8E-02	710	1.0E-01	1010	1.2E-01	1750	3.3E-01	3250	3.0E-01	4750	1.2E-03
420	3.1E-02	720	1.1E-01	1020	1.2E-01	1800	3.3E-01	3300	3.1E-01	4800	7.7E-04
430	3.4E-02	730	1.1E-01	1030	1.2E-01	1850	3.4E-01	3350	2.9E-01	4850	5.2E-04
440	3.6E-02	740	1.2E-01	1040	1.2E-01	1900	3.5E-01	3400	2.5E-01	4900	3.1E-04
450	3.9E-02	750	1.2E-01	1050	1.2E-01	1950	3.6E-01	3450	1.9E-01	4950	1.5E-04
460	4.3E-02	760	1.3E-01	1060	1.2E-01	2000	3.7E-01	3500	1.3E-01	5000	5.8E-05
470	4.4E-02	770	1.3E-01	1070	1.2E-01	2050	3.8E-01	3550	8.8E-02	5050	1.8E-05
480	4.2E-02	780	1.3E-01	1080	1.2E-01	2100	4.0E-01	3600	6.0E-02	5100	< 1.0E-05
490	4.1E-02	790	1.3E-01	1090	1.2E-01	2150	4.1E-01	3650	5.1E-02	5150	< 1.0E-05