

Data Sheet



NG11

Reflection factor	
P_d	0.923

Reference thickness	
d [mm]	1

Spectral values guaranteed	
τ_i (405nm)	= 0.76
τ_i (546nm)	= 0.77
τ_i (694nm)	= 0.79

Refractive Index n	
n_h (404.7 nm)	= 1.512
n_e (546.1 nm)	= 1.500
n_d (587.6 nm)	= 1.499
n_r (706.5 nm)	= 1.495
Sellmeier coefficients on request	

Density	
ρ [g/cm ³]	2.41

Bubble content	
Bubble class	2

Chemical Resistance	
FR class	1.0
SR class	3.4
AR class	2.0

Transformation temperature	
T _g [°C]	481

Thermal expansion	
$\alpha_{30/+70^\circ\text{C}}$ [10 ⁻⁶ /K]	6.7
$\alpha_{20/300^\circ\text{C}}$ [10 ⁻⁶ /K]	7.2
$\alpha_{20/200^\circ\text{C}}$ [10 ⁻⁶ /K]	7.0

Temperature coefficient	
T _K [nm/°C]	

Notes
Ionically colored glass
Neutral density filter

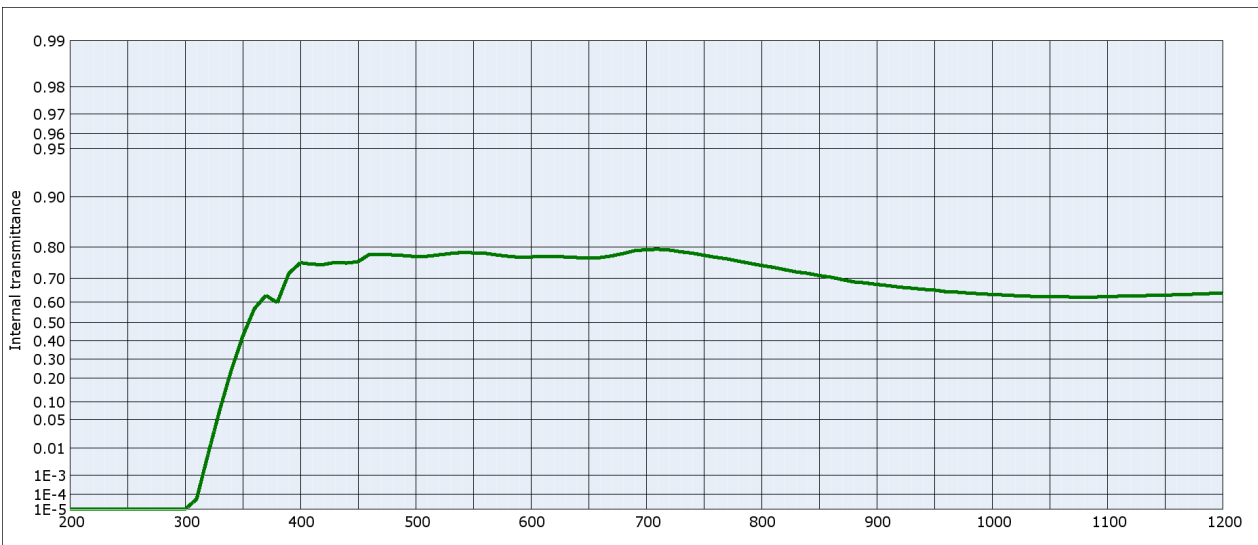
All data without tolerances are to be understood to be reference values. Guaranteed values are only those values listed in the section "Spectral values guaranteed".

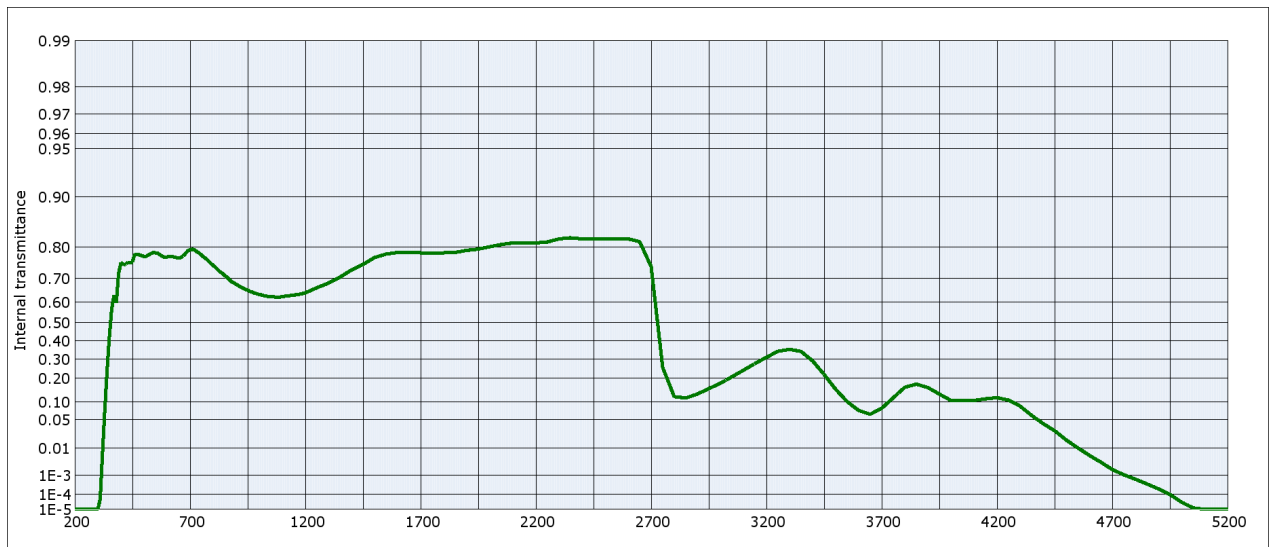
Colorimetric evaluation

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 $d = 1$ 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	0.772	800	0.744	1100	0.624	2200	0.810	3700	$8.0 \cdot 10^{-2}$
210	$< 10^{-5}$	510	0.773	810	0.738	1110	0.625	2250	0.812	3750	0.116
220	$< 10^{-5}$	520	0.777	820	0.730	1120	0.627	2300	0.820	3800	0.158
230	$< 10^{-5}$	530	0.781	830	0.722	1130	0.628	2350	0.823	3850	0.173
240	$< 10^{-5}$	540	0.784	840	0.717	1140	0.629	2400	0.820	3900	0.157
250	$< 10^{-5}$	550	0.783	850	0.709	1150	0.630	2450	0.820	3950	0.130
260	$< 10^{-5}$	560	0.782	860	0.703	1160	0.632	2500	0.820	4000	0.106
270	$< 10^{-5}$	570	0.777	870	0.694	1170	0.633	2550	0.820	4050	0.106
280	$< 10^{-5}$	580	0.773	880	0.685	1180	0.635	2600	0.820	4100	0.106
290	$< 10^{-5}$	590	0.770	890	0.681	1190	0.637	2650	0.813	4150	0.112
300	$< 10^{-5}$	600	0.771	900	0.675	1200	0.640	2700	0.740	4200	0.116
310	$5.1 \cdot 10^{-5}$	610	0.772	910	0.670	1250	0.662	2750	0.255	4250	0.107
320	$6.6 \cdot 10^{-3}$	620	0.772	920	0.664	1300	0.680	2800	0.120	4300	$8.7 \cdot 10^{-2}$
330	$7.4 \cdot 10^{-2}$	630	0.771	930	0.660	1350	0.703	2850	0.115	4350	$6.0 \cdot 10^{-2}$
340	0.239	640	0.769	940	0.655	1400	0.729	2900	0.130	4400	$4.2 \cdot 10^{-2}$
350	0.424	650	0.768	950	0.652	1450	0.747	2950	0.153	4450	$2.9 \cdot 10^{-2}$
360	0.567	660	0.769	960	0.645	1500	0.769	3000	0.176	4500	$1.7 \cdot 10^{-2}$
370	0.629	670	0.774	970	0.643	1550	0.779	3050	0.207	4550	$1.0 \cdot 10^{-2}$
380	0.597	680	0.781	980	0.639	1600	0.784	3100	0.240	4600	$6.0 \cdot 10^{-3}$
390	0.717	690	0.789	990	0.636	1650	0.784	3150	0.275	4650	$3.5 \cdot 10^{-3}$
400	0.753	700	0.792	1000	0.633	1700	0.783	3200	0.309	4700	$1.8 \cdot 10^{-3}$
410	0.748	710	0.793	1010	0.631	1750	0.783	3250	0.342	4750	$1.1 \cdot 10^{-3}$
420	0.747	720	0.791	1020	0.628	1800	0.783	3300	0.353	4800	$6.6 \cdot 10^{-4}$
430	0.754	730	0.786	1030	0.626	1850	0.784	3350	0.341	4850	$3.8 \cdot 10^{-4}$
440	0.752	740	0.782	1040	0.624	1900	0.790	3400	0.290	4900	$2.1 \cdot 10^{-4}$
450	0.756	750	0.776	1050	0.624	1950	0.794	3450	0.219	4950	$1.0 \cdot 10^{-4}$
460	0.779	760	0.770	1060	0.623	2000	0.800	3500	0.150	5000	$3.2 \cdot 10^{-5}$
470	0.779	770	0.765	1070	0.622	2050	0.806	3550	0.102	5050	$1.3 \cdot 10^{-5}$
480	0.777	780	0.758	1080	0.621	2100	0.810	3600	$7.3 \cdot 10^{-2}$	5100	$< 10^{-5}$
490	0.775	790	0.751	1090	0.622	2150	0.810	3650	$6.3 \cdot 10^{-2}$	5150	$< 10^{-5}$