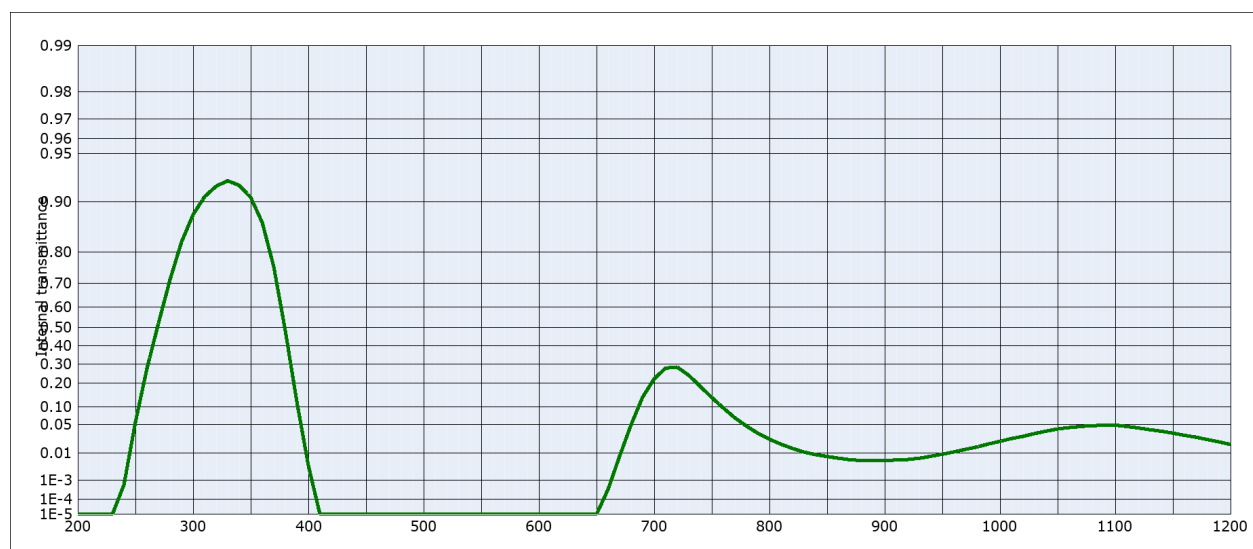


DATA SHEET

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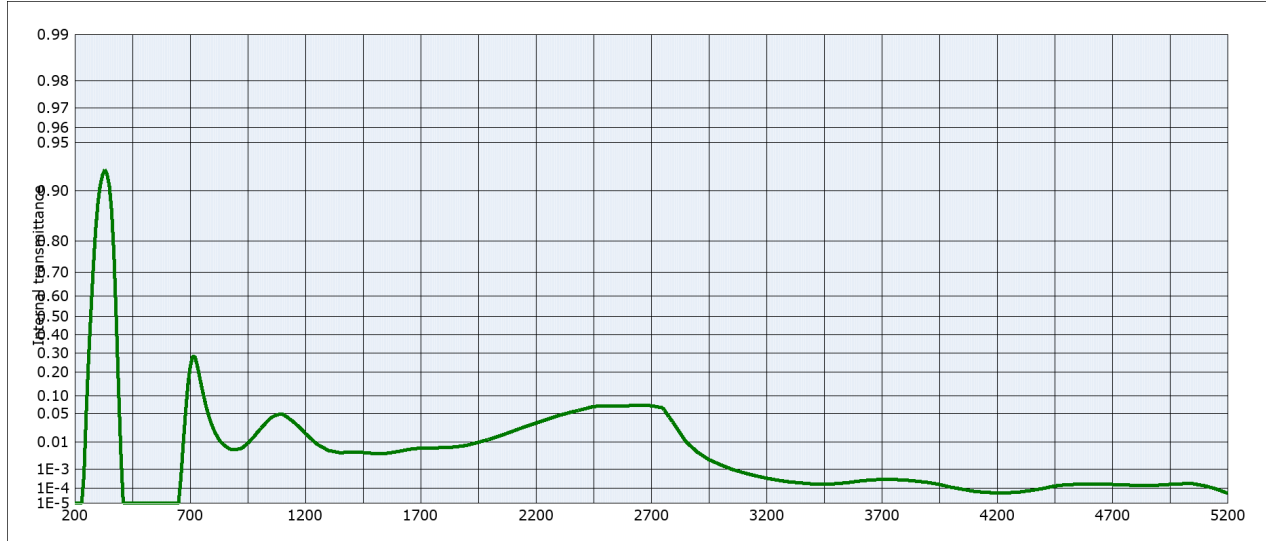
UG11		Density		Notes	
		ρ [g/cm ³]	2.92	Ionically colored glass	
		Bubble content		Bandpass filter	
Reflection factor					
P_d	0.908	Bubble class		2	
Reference thickness		Chemical Resistance			
d [mm]	1	FR class		0	
		SR class		3.0	
		AR class		2.2	
Spectral values guaranteed		Transformation temperature			
τ_i (254nm)	\geq 0.06	Tg [°C]		545	
τ_i (334nm)	\geq 0.9	Thermal expansion			
τ_i (405nm)	\leq 0.001	$\alpha_{-30/+70^\circ\text{C}}$ [10 ⁻⁶ /K]		7.8	
τ_i (694nm)	\leq 0.26	$\alpha_{20/300^\circ\text{C}}$ [10 ⁻⁶ /K]		9.0	
τ_i (725nm)	\leq 0.32	$\alpha_{20/200^\circ\text{C}}$ [10 ⁻⁶ /K]			
		Temperature coefficient			
Refractive index n		T _K [nm/°C]			
n (296.7 nm) = 1.606					
n (302.1 nm) = 1.604					
n _i (365.0 nm) = 1.585					
n _d (587.6 nm) = 1.563					
Sellmeier coefficients on request					
				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	2	3
x				x				x			
y				y				y			
Y				Y				Y			
λ_d [nm]				λ_d [nm]				λ_d [nm]			
P _e				P _e				P _e			



DATA SHEET

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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	$< 10^{-5}$	800	$2.4 \cdot 10^{-2}$	1100	$4.9 \cdot 10^{-2}$	2200	$3.2 \cdot 10^{-2}$	3700	$3.2 \cdot 10^{-4}$
210	$< 10^{-5}$	510	$< 10^{-5}$	810	$1.8 \cdot 10^{-2}$	1110	$4.6 \cdot 10^{-2}$	2250	$3.8 \cdot 10^{-2}$	3750	$3.2 \cdot 10^{-4}$
220	$< 10^{-5}$	520	$< 10^{-5}$	820	$1.4 \cdot 10^{-2}$	1120	$4.3 \cdot 10^{-2}$	2300	$4.6 \cdot 10^{-2}$	3800	$3.0 \cdot 10^{-4}$
230	$< 10^{-5}$	530	$< 10^{-5}$	830	$1.1 \cdot 10^{-2}$	1130	$3.9 \cdot 10^{-2}$	2350	$5.3 \cdot 10^{-2}$	3850	$2.6 \cdot 10^{-4}$
240	$6.1 \cdot 10^{-4}$	540	$< 10^{-5}$	840	$9.1 \cdot 10^{-3}$	1140	$3.7 \cdot 10^{-2}$	2400	$6.0 \cdot 10^{-2}$	3900	$2.2 \cdot 10^{-4}$
250	$5.6 \cdot 10^{-2}$	550	$< 10^{-5}$	850	$8.0 \cdot 10^{-3}$	1150	$3.3 \cdot 10^{-2}$	2450	$6.8 \cdot 10^{-2}$	3950	$1.7 \cdot 10^{-4}$
260	0.276	560	$< 10^{-5}$	860	$7.0 \cdot 10^{-3}$	1160	$3.0 \cdot 10^{-2}$	2500	$7.0 \cdot 10^{-2}$	4000	$1.2 \cdot 10^{-4}$
270	0.521	570	$< 10^{-5}$	870	$6.3 \cdot 10^{-3}$	1170	$2.7 \cdot 10^{-2}$	2550	$7.0 \cdot 10^{-2}$	4050	$9.0 \cdot 10^{-5}$
280	0.712	580	$< 10^{-5}$	880	$5.9 \cdot 10^{-3}$	1180	$2.4 \cdot 10^{-2}$	2600	$7.0 \cdot 10^{-2}$	4100	$6.7 \cdot 10^{-5}$
290	0.825	590	$< 10^{-5}$	890	$5.8 \cdot 10^{-3}$	1190	$2.1 \cdot 10^{-2}$	2650	$7.2 \cdot 10^{-2}$	4150	$5.7 \cdot 10^{-5}$
300	0.880	600	$< 10^{-5}$	900	$5.9 \cdot 10^{-3}$	1200	$1.8 \cdot 10^{-2}$	2700	$7.0 \cdot 10^{-2}$	4200	$5.2 \cdot 10^{-5}$
310	0.907	610	$< 10^{-5}$	910	$6.1 \cdot 10^{-3}$	1250	$8.8 \cdot 10^{-3}$	2750	$6.4 \cdot 10^{-2}$	4250	$5.4 \cdot 10^{-5}$
320	0.920	620	$< 10^{-5}$	920	$6.4 \cdot 10^{-3}$	1300	$5.5 \cdot 10^{-3}$	2800	$3.0 \cdot 10^{-2}$	4300	$6.1 \cdot 10^{-5}$
330	0.926	630	$< 10^{-5}$	930	$7.0 \cdot 10^{-3}$	1350	$4.6 \cdot 10^{-3}$	2850	$1.1 \cdot 10^{-2}$	4350	$7.6 \cdot 10^{-5}$
340	0.921	640	$< 10^{-5}$	940	$8.1 \cdot 10^{-3}$	1400	$4.8 \cdot 10^{-3}$	2900	$4.8 \cdot 10^{-3}$	4400	$1.0 \cdot 10^{-4}$
350	0.906	650	$< 10^{-5}$	950	$9.4 \cdot 10^{-3}$	1450	$4.6 \cdot 10^{-3}$	2950	$2.5 \cdot 10^{-3}$	4450	$1.4 \cdot 10^{-4}$
360	0.866	660	$3.6 \cdot 10^{-4}$	960	$1.1 \cdot 10^{-2}$	1500	$4.3 \cdot 10^{-3}$	3000	$1.6 \cdot 10^{-3}$	4500	$1.7 \cdot 10^{-4}$
370	0.756	670	$8.1 \cdot 10^{-3}$	970	$1.3 \cdot 10^{-2}$	1550	$4.3 \cdot 10^{-3}$	3050	$1.0 \cdot 10^{-3}$	4550	$1.7 \cdot 10^{-4}$
380	0.482	680	$5.0 \cdot 10^{-2}$	980	$1.5 \cdot 10^{-2}$	1600	$5.0 \cdot 10^{-3}$	3100	$7.0 \cdot 10^{-4}$	4600	$1.8 \cdot 10^{-4}$
390	0.120	690	0.138	990	$1.8 \cdot 10^{-2}$	1650	$6.0 \cdot 10^{-3}$	3150	$5.0 \cdot 10^{-4}$	4650	$1.7 \cdot 10^{-4}$
400	$4.0 \cdot 10^{-3}$	700	0.222	1000	$2.1 \cdot 10^{-2}$	1700	$6.6 \cdot 10^{-3}$	3200	$3.7 \cdot 10^{-4}$	4700	$1.7 \cdot 10^{-4}$
410	$1.0 \cdot 10^{-5}$	710	0.278	1010	$2.5 \cdot 10^{-2}$	1750	$6.7 \cdot 10^{-3}$	3250	$2.9 \cdot 10^{-4}$	4750	$1.6 \cdot 10^{-4}$
420	$< 10^{-5}$	720	0.283	1020	$2.8 \cdot 10^{-2}$	1800	$6.8 \cdot 10^{-3}$	3300	$2.4 \cdot 10^{-4}$	4800	$1.5 \cdot 10^{-4}$
430	$< 10^{-5}$	730	0.240	1030	$3.3 \cdot 10^{-2}$	1850	$7.2 \cdot 10^{-3}$	3350	$2.1 \cdot 10^{-4}$	4850	$1.5 \cdot 10^{-4}$
440	$< 10^{-5}$	740	0.185	1040	$3.7 \cdot 10^{-2}$	1900	$8.0 \cdot 10^{-3}$	3400	$1.8 \cdot 10^{-4}$	4900	$1.6 \cdot 10^{-4}$
450	$< 10^{-5}$	750	0.136	1050	$4.1 \cdot 10^{-2}$	1950	$1.0 \cdot 10^{-2}$	3450	$1.8 \cdot 10^{-4}$	4950	$1.7 \cdot 10^{-4}$
460	$< 10^{-5}$	760	$9.7 \cdot 10^{-2}$	1060	$4.4 \cdot 10^{-2}$	2000	$1.2 \cdot 10^{-2}$	3500	$1.9 \cdot 10^{-4}$	5000	$1.9 \cdot 10^{-4}$
470	$< 10^{-5}$	770	$6.7 \cdot 10^{-2}$	1070	$4.6 \cdot 10^{-2}$	2050	$1.6 \cdot 10^{-2}$	3550	$2.1 \cdot 10^{-4}$	5050	$1.9 \cdot 10^{-4}$
480	$< 10^{-5}$	780	$4.7 \cdot 10^{-2}$	1080	$4.8 \cdot 10^{-2}$	2100	$2.0 \cdot 10^{-2}$	3600	$2.6 \cdot 10^{-4}$	5100	$1.4 \cdot 10^{-4}$
490	$< 10^{-5}$	790	$3.3 \cdot 10^{-2}$	1090	$4.8 \cdot 10^{-2}$	2150	$2.6 \cdot 10^{-2}$	3650	$3.0 \cdot 10^{-4}$	5150	$9.4 \cdot 10^{-5}$