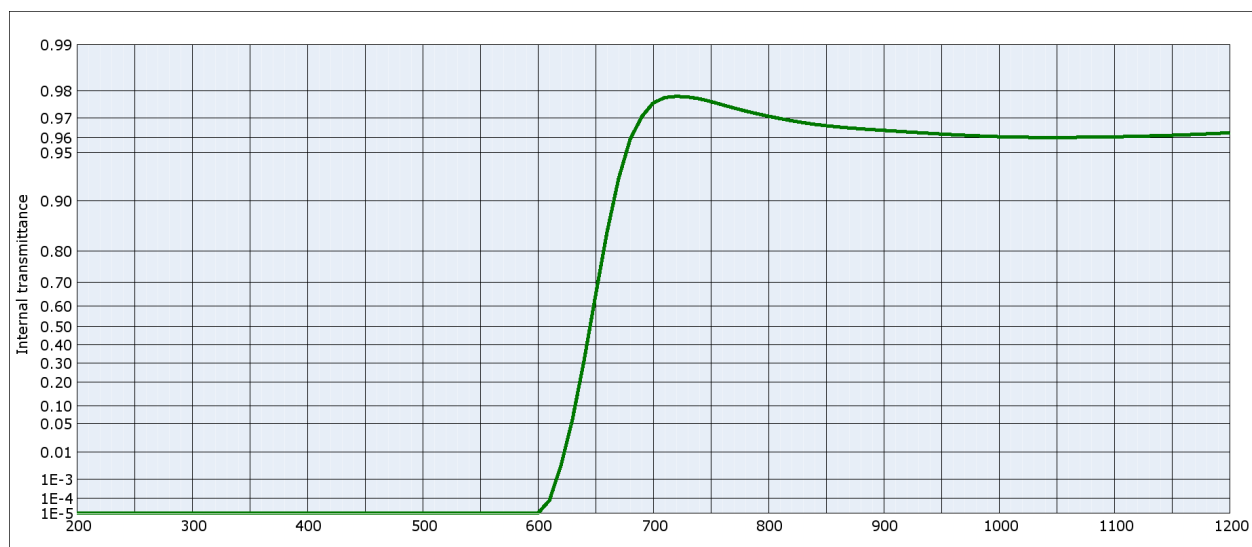


Data Sheet

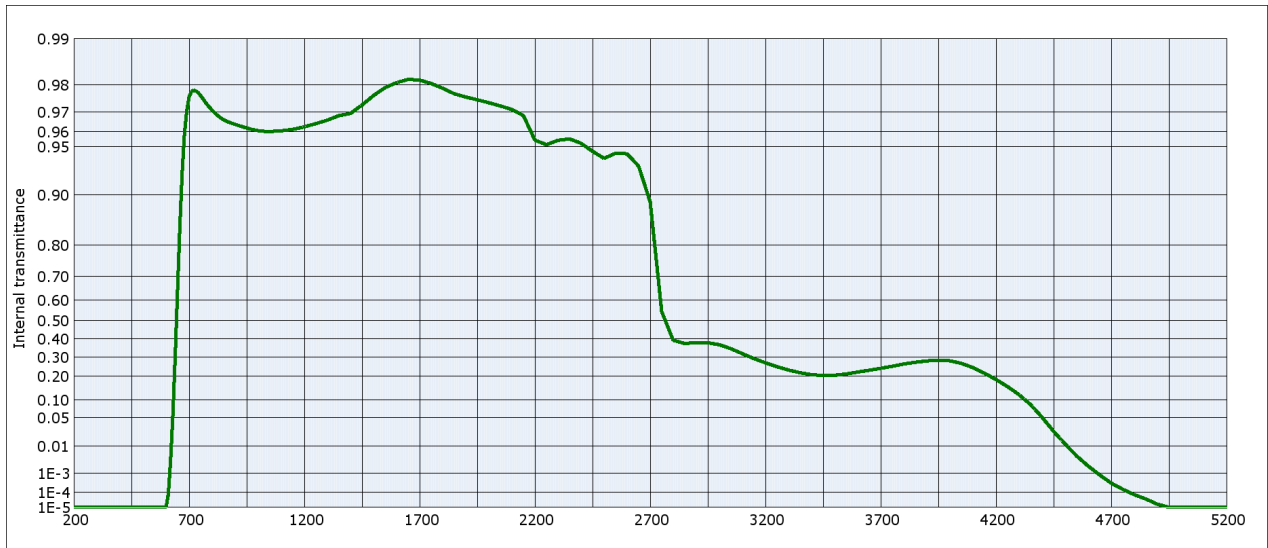


RG645		Density		Bubble content		Notes	
Reflection factor		ρ [g/cm ³]		Bubble class		Colloidally colored glass	
P_d	0.918	2.65		3		Longpass filter	
Reference thickness		Chemical Resistance		Transformation temperature		All data without tolerances are to be understood to be reference values. Guaranteed values are only those values listed in the section "Spectral values guaranteed".	
d [mm]	3	FR class		T _g [°C]			
Spectral values guaranteed		SR class		519			
λ_c ($\tau_i = 0.5$) [nm] =		AR class					
645 ± 6		0					
λ_s ($\tau_{i,U} = 10^{-5}$) [nm] =		1.0					
560							
λ_p ($\tau_{i,L} = 0.94$) [nm] =		1.0					
720							
Refractive Index n		Thermal expansion		Temperature coefficient			
n_d (587.6 nm) = 1.520		$\alpha_{30/+70^\circ\text{C}}$ [10 ⁻⁶ /K]		T_K [nm/°C]			
n_s (852.1 nm) = 1.520		8.0		0.16			
n_t (1014.0 nm) = 1.510		$\alpha_{20/300^\circ\text{C}}$ [10 ⁻⁶ /K]					
		9.2					
		$\alpha_{20/200^\circ\text{C}}$ [10 ⁻⁶ /K]					

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	0.672	0.722	0.726	x	0.662	0.722	0.726	x	0.584	0.717	0.726
y	0.303	0.277	0.274	y	0.304	0.277	0.274	y	0.298	0.278	0.274
Y	9	5	4	Y	8	4	3	Y	5	2	2
λ_d [nm]	640	647	651	λ_d [nm]	640	646	651	λ_d [nm]	638	645	650
P _e	0.83	0.99	1.00	P _e	0.81	0.99	1.00	P _e	0.67	0.98	1.00



RG645



Internal transmittance τ_i at reference thickness $d = 3 \text{ mm}$ 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	0.971	1100	0.960	2200	0.955	3700	0.240
210	$< 10^{-5}$	510	$< 10^{-5}$	810	0.970	1110	0.961	2250	0.952	3750	0.250
220	$< 10^{-5}$	520	$< 10^{-5}$	820	0.969	1120	0.961	2300	0.955	3800	0.262
230	$< 10^{-5}$	530	$< 10^{-5}$	830	0.968	1130	0.961	2350	0.956	3850	0.271
240	$< 10^{-5}$	540	$< 10^{-5}$	840	0.967	1140	0.961	2400	0.953	3900	0.279
250	$< 10^{-5}$	550	$< 10^{-5}$	850	0.966	1150	0.961	2450	0.947	3950	0.283
260	$< 10^{-5}$	560	$< 10^{-5}$	860	0.966	1160	0.962	2500	0.941	4000	0.279
270	$< 10^{-5}$	570	$< 10^{-5}$	870	0.965	1170	0.962	2550	0.945	4050	0.266
280	$< 10^{-5}$	580	$< 10^{-5}$	880	0.965	1180	0.962	2600	0.945	4100	0.244
290	$< 10^{-5}$	590	$< 10^{-5}$	890	0.964	1190	0.962	2650	0.934	4150	0.215
300	$< 10^{-5}$	600	$< 10^{-5}$	900	0.964	1200	0.963	2700	0.889	4200	0.184
310	$< 10^{-5}$	610	$7.6 \cdot 10^{-5}$	910	0.964	1250	0.964	2750	0.544	4250	0.153
320	$< 10^{-5}$	620	$3.6 \cdot 10^{-3}$	920	0.963	1300	0.966	2800	0.392	4300	0.120
330	$< 10^{-5}$	630	$6.1 \cdot 10^{-2}$	930	0.963	1350	0.968	2850	0.374	4350	$8.5 \cdot 10^{-2}$
340	$< 10^{-5}$	640	0.311	940	0.962	1400	0.969	2900	0.379	4400	$5.1 \cdot 10^{-2}$
350	$< 10^{-5}$	650	0.645	950	0.962	1450	0.973	2950	0.378	4450	$2.5 \cdot 10^{-2}$
360	$< 10^{-5}$	660	0.845	960	0.962	1500	0.977	3000	0.367	4500	$1.2 \cdot 10^{-2}$
370	$< 10^{-5}$	670	0.927	970	0.961	1550	0.979	3050	0.346	4550	$4.8 \cdot 10^{-3}$
380	$< 10^{-5}$	680	0.959	980	0.961	1600	0.981	3100	0.318	4600	$2.0 \cdot 10^{-3}$
390	$< 10^{-5}$	690	0.971	990	0.961	1650	0.982	3150	0.291	4650	$8.3 \cdot 10^{-4}$
400	$< 10^{-5}$	700	0.976	1000	0.961	1700	0.981	3200	0.269	4700	$3.3 \cdot 10^{-4}$
410	$< 10^{-5}$	710	0.978	1010	0.960	1750	0.980	3250	0.248	4750	$1.5 \cdot 10^{-4}$
420	$< 10^{-5}$	720	0.978	1020	0.960	1800	0.979	3300	0.231	4800	$7.3 \cdot 10^{-5}$
430	$< 10^{-5}$	730	0.978	1030	0.960	1850	0.977	3350	0.218	4850	$3.8 \cdot 10^{-5}$
440	$< 10^{-5}$	740	0.977	1040	0.960	1900	0.976	3400	0.208	4900	$1.7 \cdot 10^{-5}$
450	$< 10^{-5}$	750	0.977	1050	0.960	1950	0.975	3450	0.204	4950	$< 10^{-5}$
460	$< 10^{-5}$	760	0.975	1060	0.960	2000	0.974	3500	0.205	5000	$< 10^{-5}$
470	$< 10^{-5}$	770	0.974	1070	0.960	2050	0.973	3550	0.211	5050	$< 10^{-5}$
480	$< 10^{-5}$	780	0.973	1080	0.960	2100	0.971	3600	0.221	5100	$< 10^{-5}$
490	$< 10^{-5}$	790	0.972	1090	0.960	2150	0.968	3650	0.230	5150	$< 10^{-5}$