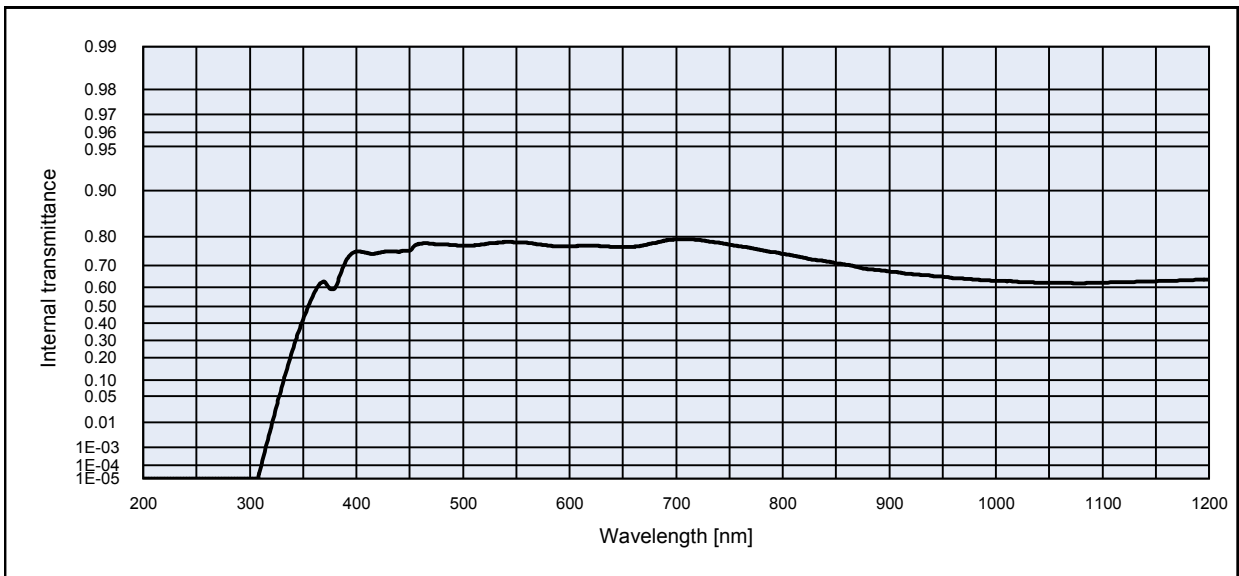
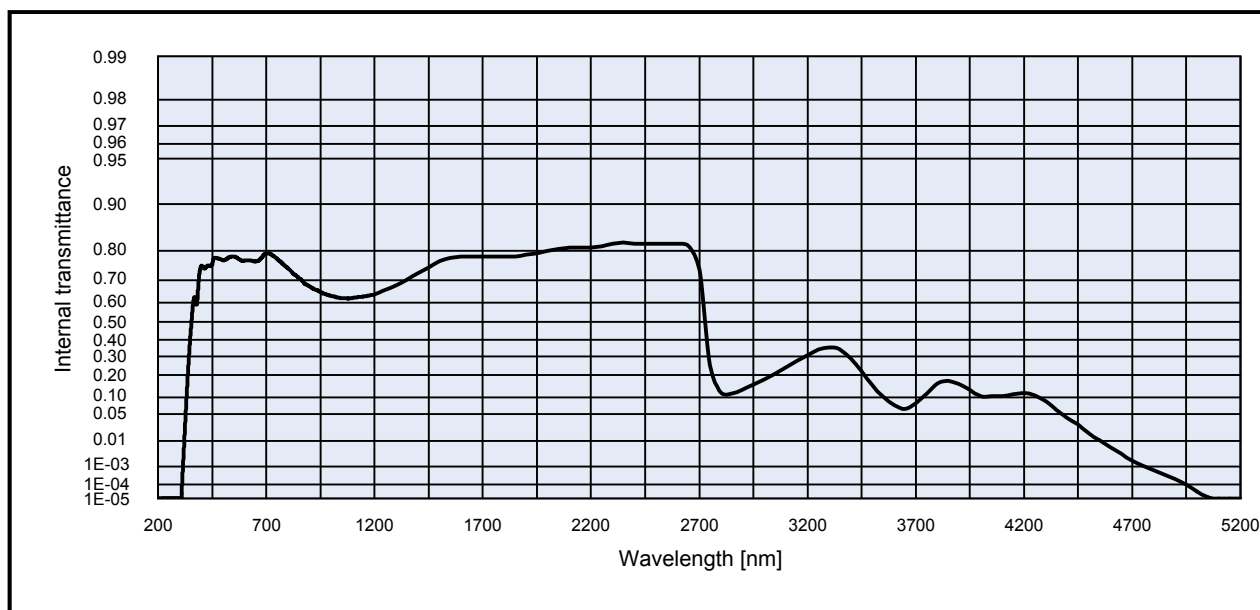


NG11			Density		Notes						
			ρ [g/cm ³]	2.42		Ionically colored glass					
Reflection factor			Bubble content			Neutral density filter					
P_d			0.92		Bubble class		2				
Reference thickness			Chemical resistance								
d [mm]			1		FR class		1				
					SR class		3.4				
					AR class		2.0				
Spectral values guaranteed			Transformation temperature								
τ_i (405 nm) = 0.76 ± 0.02			T_g [°C]		481						
τ_i (546 nm) = 0.77 ± 0.02			Thermal expansion								
τ_i (694 nm) = 0.79 ± 0.02			$\alpha_{-30/+70^\circ\text{C}}$ [10 ⁻⁶ /K]		6.9						
			$\alpha_{20/300^\circ\text{C}}$ [10 ⁻⁶ /K]		7.5						
			$\alpha_{20/200^\circ\text{C}}$ [10 ⁻⁶ /K]								
			Temperature coefficient								
Refractive index n			T_k [nm/°C]					<p>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".</p>			
λ [nm]	Element	n									
404.7	Hg	1.51									
587.6	He	1.50									
1014	Hg	1.49									

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			





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	7.7E-01	800	7.4E-01	1100	6.2E-01	2200	8.1E-01	3700	8.0E-02
210	< 1.0E-05	510	7.7E-01	810	7.4E-01	1110	6.3E-01	2250	8.1E-01	3750	1.2E-01
220	< 1.0E-05	520	7.8E-01	820	7.3E-01	1120	6.3E-01	2300	8.2E-01	3800	1.6E-01
230	< 1.0E-05	530	7.8E-01	830	7.2E-01	1130	6.3E-01	2350	8.2E-01	3850	1.7E-01
240	< 1.0E-05	540	7.8E-01	840	7.2E-01	1140	6.3E-01	2400	8.2E-01	3900	1.6E-01
250	< 1.0E-05	550	7.8E-01	850	7.1E-01	1150	6.3E-01	2450	8.2E-01	3950	1.3E-01
260	< 1.0E-05	560	7.8E-01	860	7.0E-01	1160	6.3E-01	2500	8.2E-01	4000	1.1E-01
270	< 1.0E-05	570	7.8E-01	870	6.9E-01	1170	6.3E-01	2550	8.2E-01	4050	1.1E-01
280	< 1.0E-05	580	7.7E-01	880	6.9E-01	1180	6.4E-01	2600	8.2E-01	4100	1.1E-01
290	< 1.0E-05	590	7.7E-01	890	6.8E-01	1190	6.4E-01	2650	8.1E-01	4150	1.1E-01
300	< 1.0E-05	600	7.7E-01	900	6.8E-01	1200	6.4E-01	2700	7.4E-01	4200	1.2E-01
310	5.1E-05	610	7.7E-01	910	6.7E-01	1250	6.6E-01	2750	2.5E-01	4250	1.1E-01
320	6.6E-03	620	7.7E-01	920	6.6E-01	1300	6.8E-01	2800	1.2E-01	4300	8.7E-02
330	7.4E-02	630	7.7E-01	930	6.6E-01	1350	7.0E-01	2850	1.2E-01	4350	6.0E-02
340	2.4E-01	640	7.7E-01	940	6.6E-01	1400	7.3E-01	2900	1.3E-01	4400	4.2E-02
350	4.2E-01	650	7.7E-01	950	6.5E-01	1450	7.5E-01	2950	1.5E-01	4450	2.9E-02
360	5.7E-01	660	7.7E-01	960	6.5E-01	1500	7.7E-01	3000	1.8E-01	4500	1.7E-02
370	6.3E-01	670	7.7E-01	970	6.4E-01	1550	7.8E-01	3050	2.1E-01	4550	1.0E-02
380	6.0E-01	680	7.8E-01	980	6.4E-01	1600	7.8E-01	3100	2.4E-01	4600	6.0E-03
390	7.2E-01	690	7.9E-01	990	6.4E-01	1650	7.8E-01	3150	2.8E-01	4650	3.5E-03
400	7.5E-01	700	7.9E-01	1000	6.3E-01	1700	7.8E-01	3200	3.1E-01	4700	1.8E-03
410	7.5E-01	710	7.9E-01	1010	6.3E-01	1750	7.8E-01	3250	3.4E-01	4750	1.1E-03
420	7.5E-01	720	7.9E-01	1020	6.3E-01	1800	7.8E-01	3300	3.5E-01	4800	6.6E-04
430	7.5E-01	730	7.9E-01	1030	6.3E-01	1850	7.8E-01	3350	3.4E-01	4850	3.8E-04
440	7.5E-01	740	7.8E-01	1040	6.2E-01	1900	7.9E-01	3400	2.9E-01	4900	2.1E-04
450	7.6E-01	750	7.8E-01	1050	6.2E-01	1950	7.9E-01	3450	2.2E-01	4950	1.0E-04
460	7.8E-01	760	7.7E-01	1060	6.2E-01	2000	8.0E-01	3500	1.5E-01	5000	3.2E-05
470	7.8E-01	770	7.7E-01	1070	6.2E-01	2050	8.1E-01	3550	1.0E-01	5050	1.3E-05
480	7.8E-01	780	7.6E-01	1080	6.2E-01	2100	8.1E-01	3600	7.4E-02	5100	< 1.0E-05
490	7.8E-01	790	7.5E-01	1090	6.2E-01	2150	8.1E-01	3650	6.3E-02	5150	< 1.0E-05