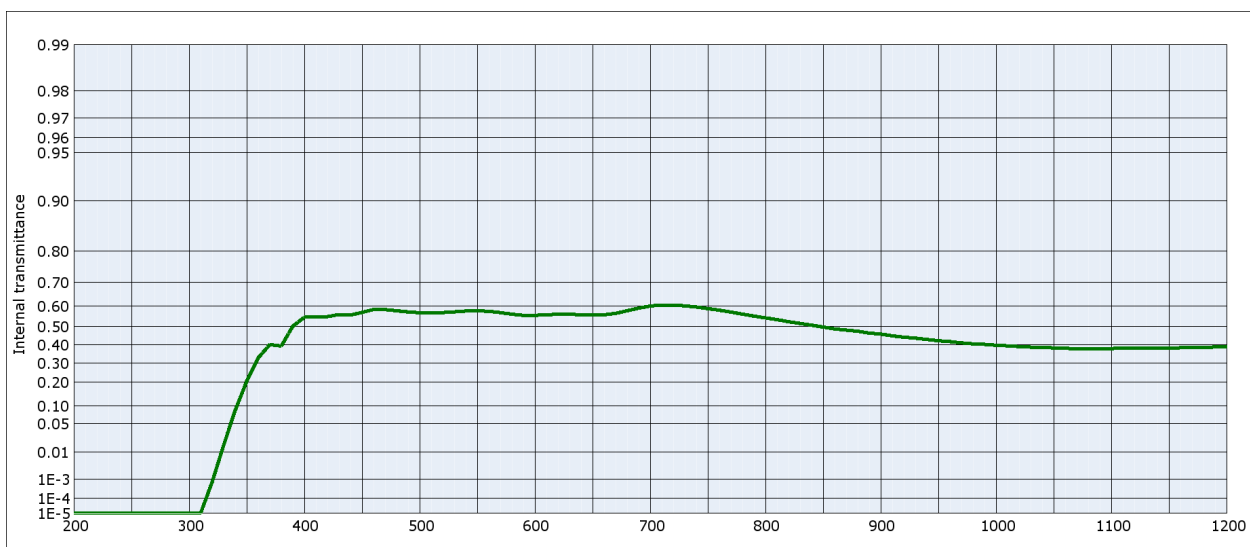


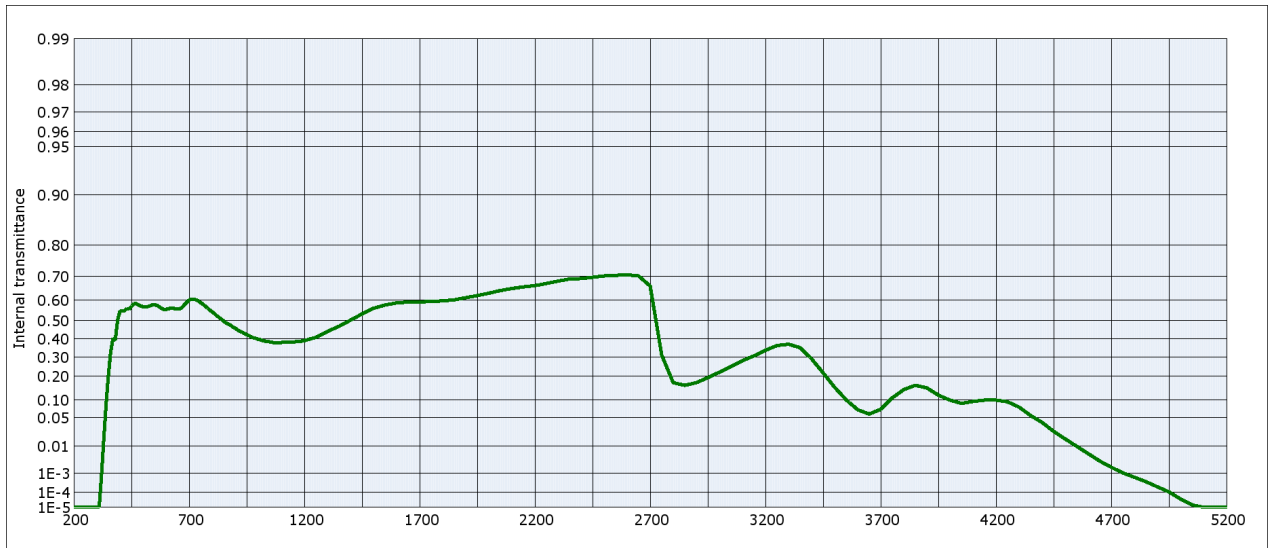
Data Sheet



NG5		Density ρ [g/cm ³] 2.43		Notes Ionically colored glass Neutral density filter	
Reflection factor P _d 0.923		Bubble content Bubble class 2			
Reference thickness d [mm] 1		Chemical Resistance FR class 1.0 SR class 3.2 AR class 2.0			
Spectral values guaranteed τ _i (405nm) = 0.56 τ _i (546nm) = 0.57 τ _i (694nm) = 0.62		Transformation temperature T _g [°C] 474			
		Thermal expansion α _{30/+70°C} [10 ⁻⁶ /K] 6.6 α _{20/300°C} [10 ⁻⁶ /K] 7.3 α _{20/200°C} [10 ⁻⁶ /K]			
Refractive Index n n _d (587.6 nm) = 1.500		Temperature coefficient T _K [nm/°C]		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			





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	0.568	800	0.542	1100	0.379	2200	0.662	3700	$7.1 \cdot 10^{-2}$
210	$< 10^{-5}$	510	0.567	810	0.534	1110	0.381	2250	0.671	3750	0.108
220	$< 10^{-5}$	520	0.568	820	0.523	1120	0.381	2300	0.680	3800	0.140
230	$< 10^{-5}$	530	0.572	830	0.514	1130	0.382	2350	0.688	3850	0.158
240	$< 10^{-5}$	540	0.576	840	0.505	1140	0.382	2400	0.690	3900	0.147
250	$< 10^{-5}$	550	0.577	850	0.495	1150	0.383	2450	0.695	3950	0.118
260	$< 10^{-5}$	560	0.575	860	0.486	1160	0.383	2500	0.700	4000	0.100
270	$< 10^{-5}$	570	0.568	870	0.480	1170	0.384	2550	0.702	4050	$8.9 \cdot 10^{-2}$
280	$< 10^{-5}$	580	0.561	880	0.473	1180	0.386	2600	0.704	4100	$9.5 \cdot 10^{-2}$
290	$< 10^{-5}$	590	0.555	890	0.464	1190	0.388	2650	0.700	4150	0.100
300	$< 10^{-5}$	600	0.555	900	0.458	1200	0.390	2700	0.660	4200	0.100
310	$< 10^{-5}$	610	0.558	910	0.449	1250	0.408	2750	0.311	4250	$9.4 \cdot 10^{-2}$
320	$7.4 \cdot 10^{-4}$	620	0.560	920	0.442	1300	0.440	2800	0.170	4300	$7.8 \cdot 10^{-2}$
330	$1.6 \cdot 10^{-2}$	630	0.560	930	0.436	1350	0.468	2850	0.158	4350	$5.5 \cdot 10^{-2}$
340	$8.6 \cdot 10^{-2}$	640	0.558	940	0.429	1400	0.500	2900	0.170	4400	$4.0 \cdot 10^{-2}$
350	0.205	650	0.556	950	0.422	1450	0.532	2950	0.194	4450	$2.5 \cdot 10^{-2}$
360	0.328	660	0.558	960	0.417	1500	0.560	3000	0.220	4500	$1.6 \cdot 10^{-2}$
370	0.401	670	0.564	970	0.410	1550	0.576	3050	0.249	4550	$1.0 \cdot 10^{-2}$
380	0.393	680	0.577	980	0.405	1600	0.586	3100	0.280	4600	$5.8 \cdot 10^{-3}$
390	0.500	690	0.589	990	0.402	1650	0.590	3150	0.306	4650	$3.2 \cdot 10^{-3}$
400	0.546	700	0.599	1000	0.397	1700	0.590	3200	0.336	4700	$1.8 \cdot 10^{-3}$
410	0.546	710	0.604	1010	0.394	1750	0.593	3250	0.363	4750	$1.0 \cdot 10^{-3}$
420	0.549	720	0.604	1020	0.390	1800	0.595	3300	0.370	4800	$6.6 \cdot 10^{-4}$
430	0.559	730	0.600	1030	0.387	1850	0.600	3350	0.351	4850	$4.0 \cdot 10^{-4}$
440	0.556	740	0.595	1040	0.385	1900	0.610	3400	0.290	4900	$2.1 \cdot 10^{-4}$
450	0.569	750	0.587	1050	0.383	1950	0.619	3450	0.217	4950	$1.1 \cdot 10^{-4}$
460	0.583	760	0.580	1060	0.380	2000	0.630	3500	0.150	5000	$3.9 \cdot 10^{-5}$
470	0.583	770	0.571	1070	0.379	2050	0.641	3550	0.101	5050	$1.5 \cdot 10^{-5}$
480	0.577	780	0.561	1080	0.377	2100	0.650	3600	$7.0 \cdot 10^{-2}$	5100	$< 10^{-5}$
490	0.571	790	0.551	1090	0.376	2150	0.657	3650	$5.9 \cdot 10^{-2}$	5150	$< 10^{-5}$