

BG68HS

Reflection factor	
P_d	0.913

Reference thickness	
d [mm]	1

Spectral values guaranteed		
τ_i (405nm)	\geq	0.52
τ_i (514nm)	\geq	0.79
τ_i (633nm)	\geq	0.03
τ_i (694nm)	\leq	0.001

Refractive Index n	
n_e (546.1 nm)	= 1.543

Density	
ρ [g/cm ³]	2.88

Bubble content	
Bubble class	2

Chemical Resistance	
FR class	0
SR class	0
AR class	0

Transformation temperature	
Tg [°C]	417

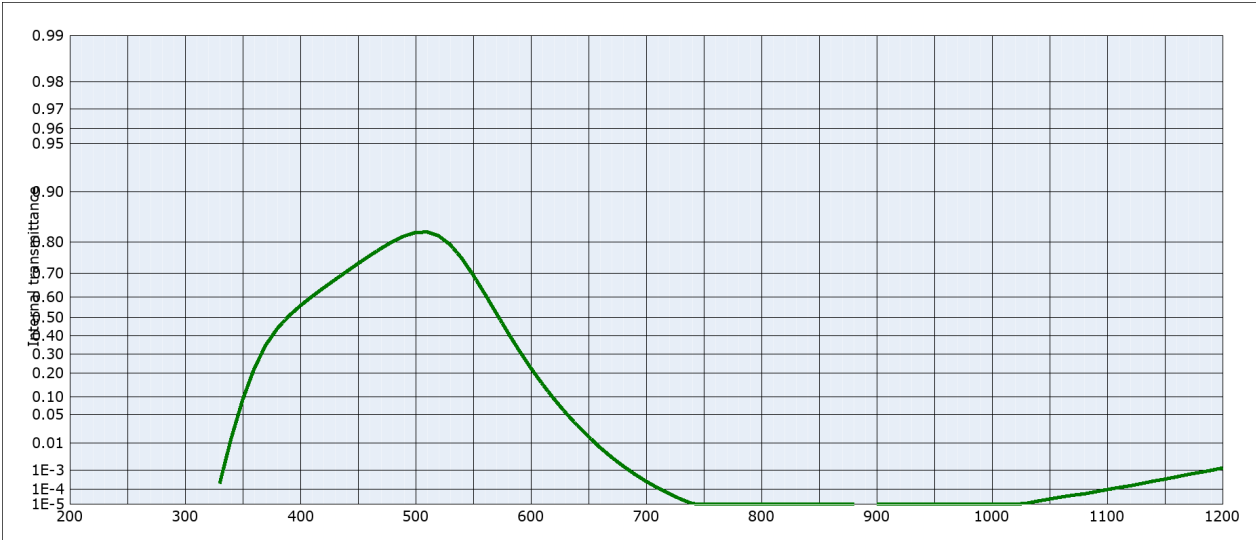
Thermal expansion	
$\alpha_{30/70^\circ\text{C}}$ [10 ⁻⁶ /K]	11.5
$\alpha_{20/300^\circ\text{C}}$ [10 ⁻⁶ /K]	13.3
$\alpha_{20/200^\circ\text{C}}$ [10 ⁻⁶ /K]	

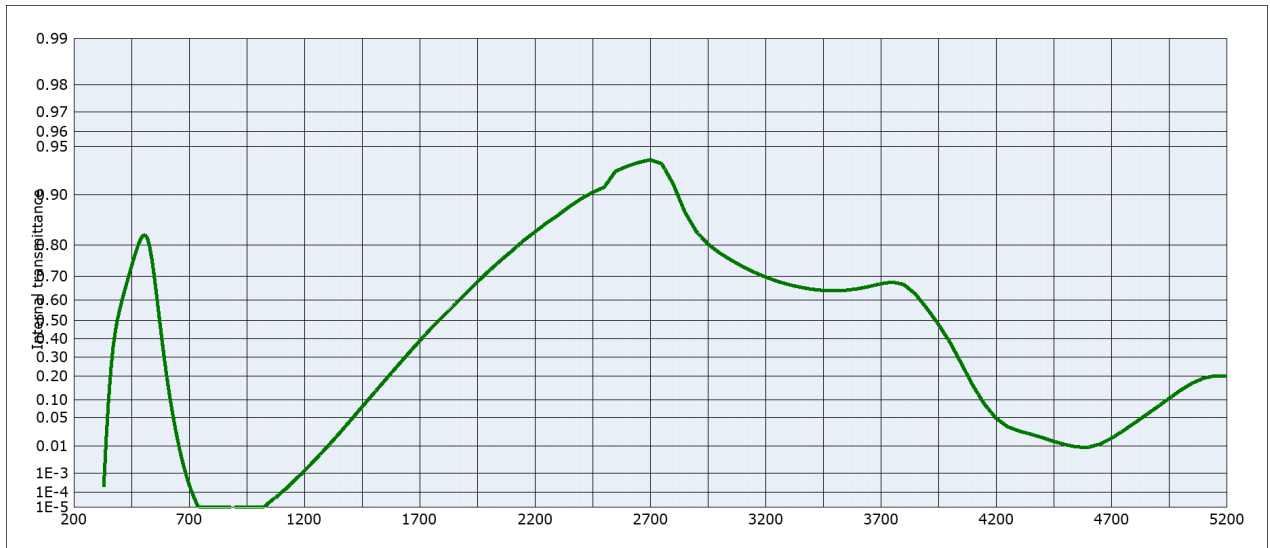
Temperature coefficient	
T_K [nm/°C]	

Notes
Ionically colored glass
Bandpass filter / shortpass filter
Color compensating filter / IR cut filter
$\lambda_{50\%}$ (thickness=0.175mm) = 639 nm
Long-term changes of the polished surface are possible under some circumstances.
Knoop hardness HK (0.1/20) = 390
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]
x	0.298	0.234	0.200	x	0.281	0.222	0.192	x	0.217	0.182	0.164
y	0.448	0.455	0.457	y	0.428	0.431	0.431	y	0.323	0.318	0.318
Y	43	27	18	Y	45	28	20	Y	51	35	25
λ_d [nm]	500	499	498	λ_d [nm]	498	497	497	λ_d [nm]	491	491	491
P _e	0.34	0.49	0.57	P _e	0.35	0.49	0.57	P _e	0.36	0.48	0.55





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	0.823	800	$< 10^{-5}$	1100	$9.8 \cdot 10^{-5}$	2200	0.832	3700	0.670
210	$< 10^{-5}$	510	0.825	810	$< 10^{-5}$	1110	$1.3 \cdot 10^{-4}$	2250	0.851	3750	0.676
220	$< 10^{-5}$	520	0.815	820	$< 10^{-5}$	1120	$1.6 \cdot 10^{-4}$	2300	0.866	3800	0.667
230	$< 10^{-5}$	530	0.792	830	$< 10^{-5}$	1130	$2.2 \cdot 10^{-4}$	2350	0.882	3850	0.627
240	$< 10^{-5}$	540	0.751	840	$< 10^{-5}$	1140	$3.0 \cdot 10^{-4}$	2400	0.894	3900	0.560
250	$< 10^{-5}$	550	0.691	850	$< 10^{-5}$	1150	$3.7 \cdot 10^{-4}$	2450	0.903	3950	0.479
260	$< 10^{-5}$	560	0.614	860	$< 10^{-5}$	1160	$4.9 \cdot 10^{-4}$	2500	0.910	4000	0.381
270	$< 10^{-5}$	570	0.520	870	$< 10^{-5}$	1170	$6.4 \cdot 10^{-4}$	2550	0.929	4050	0.264
280	$< 10^{-5}$	580	0.418	880	$< 10^{-5}$	1180	$7.9 \cdot 10^{-4}$	2600	0.934	4100	0.157
290	$< 10^{-5}$	590	0.317	890	$< 10^{-5}$	1190	$9.9 \cdot 10^{-4}$	2650	0.937	4150	$8.6 \cdot 10^{-2}$
300	$< 10^{-5}$	600	0.226	900	$< 10^{-5}$	1200	$1.3 \cdot 10^{-3}$	2700	0.940	4200	$4.9 \cdot 10^{-2}$
310	$< 10^{-5}$	610	0.151	910	$< 10^{-5}$	1250	$3.8 \cdot 10^{-3}$	2750	0.936	4250	$3.2 \cdot 10^{-2}$
320	$< 10^{-5}$	620	$9.4 \cdot 10^{-2}$	920	$< 10^{-5}$	1300	$9.8 \cdot 10^{-3}$	2800	0.914	4300	$2.6 \cdot 10^{-2}$
330	$2.1 \cdot 10^{-4}$	630	$5.5 \cdot 10^{-2}$	930	$< 10^{-5}$	1350	$2.2 \cdot 10^{-2}$	2850	0.873	4350	$2.2 \cdot 10^{-2}$
340	$1.4 \cdot 10^{-2}$	640	$3.0 \cdot 10^{-2}$	940	$< 10^{-5}$	1400	$4.4 \cdot 10^{-2}$	2900	0.833	4400	$1.8 \cdot 10^{-2}$
350	$9.2 \cdot 10^{-2}$	650	$1.6 \cdot 10^{-2}$	950	$< 10^{-5}$	1450	$7.8 \cdot 10^{-2}$	2950	0.802	4450	$1.4 \cdot 10^{-2}$
360	0.223	660	$7.4 \cdot 10^{-3}$	960	$< 10^{-5}$	1500	0.124	3000	0.777	4500	$1.1 \cdot 10^{-2}$
370	0.349	670	$3.4 \cdot 10^{-3}$	970	$< 10^{-5}$	1550	0.181	3050	0.755	4550	$9.5 \cdot 10^{-3}$
380	0.440	680	$1.5 \cdot 10^{-3}$	980	$< 10^{-5}$	1600	0.247	3100	0.734	4600	$9.3 \cdot 10^{-3}$
390	0.506	690	$6.6 \cdot 10^{-4}$	990	$< 10^{-5}$	1650	0.317	3150	0.714	4650	$1.2 \cdot 10^{-2}$
400	0.558	700	$2.9 \cdot 10^{-4}$	1000	$< 10^{-5}$	1700	0.388	3200	0.696	4700	$1.7 \cdot 10^{-2}$
410	0.601	710	$1.2 \cdot 10^{-4}$	1010	$< 10^{-5}$	1750	0.457	3250	0.680	4750	$2.6 \cdot 10^{-2}$
420	0.639	720	$5.4 \cdot 10^{-5}$	1020	$< 10^{-5}$	1800	0.518	3300	0.666	4800	$3.9 \cdot 10^{-2}$
430	0.674	730	$2.4 \cdot 10^{-5}$	1030	$1.2 \cdot 10^{-5}$	1850	0.576	3350	0.656	4850	$5.6 \cdot 10^{-2}$
440	0.705	740	$1.1 \cdot 10^{-5}$	1040	$1.7 \cdot 10^{-5}$	1900	0.628	3400	0.647	4900	$7.8 \cdot 10^{-2}$
450	0.733	750	$< 10^{-5}$	1050	$2.4 \cdot 10^{-5}$	1950	0.677	3450	0.642	4950	0.106
460	0.759	760	$< 10^{-5}$	1060	$3.3 \cdot 10^{-5}$	2000	0.718	3500	0.640	5000	0.137
470	0.781	770	$< 10^{-5}$	1070	$4.3 \cdot 10^{-5}$	2050	0.753	3550	0.643	5050	0.167
480	0.800	780	$< 10^{-5}$	1080	$5.3 \cdot 10^{-5}$	2100	0.783	3600	0.649	5100	0.191
490	0.815	790	$< 10^{-5}$	1090	$7.2 \cdot 10^{-5}$	2150	0.810	3650	0.658	5150	0.203