

Data Sheet



BG62HT

Reflection factor	
P _d	0.914

Reference thickness	
d [mm]	1

Spectral values guaranteed		
τ _i (405nm)	≥	0.8
τ _i (514nm)	≥	0.9
τ _i (633nm)	≥	0.08
τ _i (694nm)	≤	0.004
τ _i (1060nm)	≤	0.0005

Refractive Index n	
n _i (365.0 nm) =	1.561
n _h (404.7 nm) =	1.554
n _g (435.8 nm) =	1.550
n _F (480.0 nm) =	1.546
Sellmeier coefficients on request	

Density	
ρ [g/cm ³]	2.85

Bubble content	
Bubble class	2

Chemical Resistance	
FR class	1.0
SR class	52.3
AR class	3.3

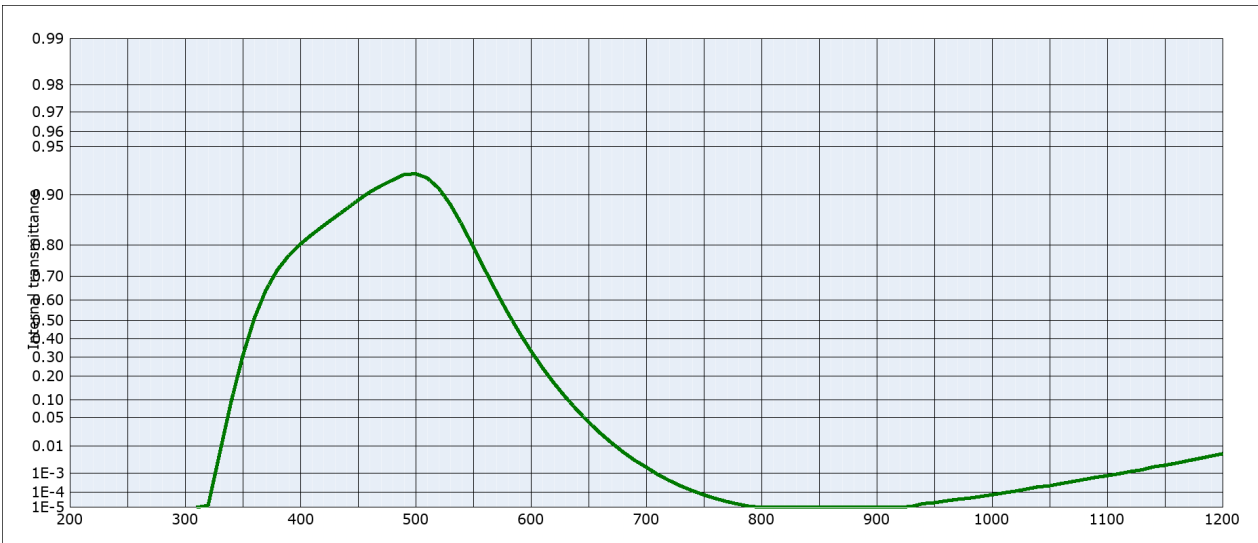
Transformation temperature	
T _g [°C]	410

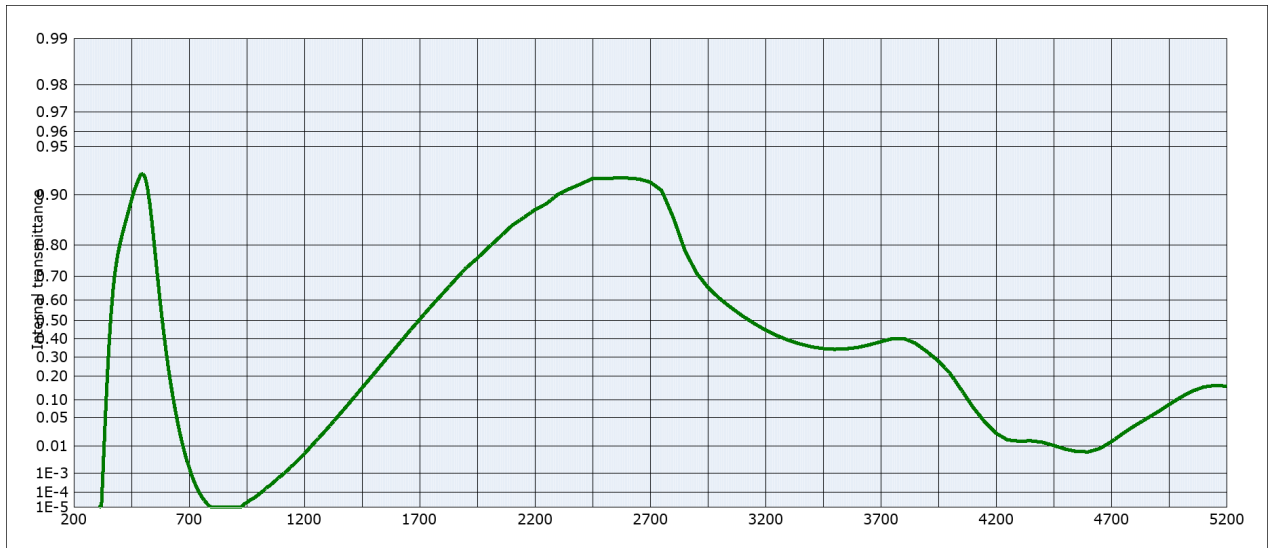
Thermal expansion	
α _{30/+70°C} [10 ⁻⁶ /K]	11.8
α _{20/300°C} [10 ⁻⁶ /K]	13.7
α _{20/200°C} [10 ⁻⁶ /K]	

Temperature coefficient	
T _K [nm/°C]	

Notes
Ionically colored glass
Bandpass filter / shortpass filter
Color compensating filter / IR cut filter
λ _{50%} (thickness=0.21mm) = 644 nm
Long-term changes of the polished surface are possible under some circumstances.
no visible surface damage after 500 h of humidity test 85 °C / 85 % rh
Knoop hardness HK (0.1/20) = 368
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
x	0.317	0.252	0.215	x	0.298	0.238	0.205	x	0.226	0.191	0.172	
y	0.438	0.438	0.430	y	0.418	0.413	0.403	y	0.314	0.299	0.288	
Y	52	37	28	Y	54	39	30	Y	61	47	38	
λ _d [nm]	499	497	496	λ _d [nm]	497	496	495	λ _d [nm]	489	489	488	
P _e	0.30	0.45	0.54	P _e	0.31	0.46	0.55	P _e	0.33	0.47	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	0.926	800	$< 10^{-5}$	1100	$7.7 \cdot 10^{-4}$	2200	0.876	3700	0.384
210	$< 10^{-5}$	510	0.921	810	$< 10^{-5}$	1110	$9.5 \cdot 10^{-4}$	2250	0.886	3750	0.400
220	$< 10^{-5}$	520	0.909	820	$< 10^{-5}$	1120	$1.2 \cdot 10^{-3}$	2300	0.901	3800	0.402
230	$< 10^{-5}$	530	0.886	830	$< 10^{-5}$	1130	$1.4 \cdot 10^{-3}$	2350	0.908	3850	0.375
240	$< 10^{-5}$	540	0.848	840	$< 10^{-5}$	1140	$1.9 \cdot 10^{-3}$	2400	0.914	3900	0.330
250	$< 10^{-5}$	550	0.794	850	$< 10^{-5}$	1150	$2.2 \cdot 10^{-3}$	2450	0.921	3950	0.278
260	$< 10^{-5}$	560	0.723	860	$< 10^{-5}$	1160	$2.7 \cdot 10^{-3}$	2500	0.920	4000	0.215
270	$< 10^{-5}$	570	0.636	870	$< 10^{-5}$	1170	$3.3 \cdot 10^{-3}$	2550	0.921	4050	0.139
280	$< 10^{-5}$	580	0.537	880	$< 10^{-5}$	1180	$4.0 \cdot 10^{-3}$	2600	0.921	4100	$7.8 \cdot 10^{-2}$
290	$< 10^{-5}$	590	0.434	890	$< 10^{-5}$	1190	$4.8 \cdot 10^{-3}$	2650	0.920	4150	$4.2 \cdot 10^{-2}$
300	$< 10^{-5}$	600	0.334	900	$< 10^{-5}$	1200	$5.8 \cdot 10^{-3}$	2700	0.917	4200	$2.3 \cdot 10^{-2}$
310	$< 10^{-5}$	610	0.243	910	$< 10^{-5}$	1250	$1.4 \cdot 10^{-2}$	2750	0.906	4250	$1.5 \cdot 10^{-2}$
320	$1.3 \cdot 10^{-5}$	620	0.168	920	$1.0 \cdot 10^{-5}$	1300	$2.9 \cdot 10^{-2}$	2800	0.863	4300	$1.4 \cdot 10^{-2}$
330	$5.9 \cdot 10^{-3}$	630	0.111	930	$1.1 \cdot 10^{-5}$	1350	$5.6 \cdot 10^{-2}$	2850	0.785	4350	$1.4 \cdot 10^{-2}$
340	$9.5 \cdot 10^{-2}$	640	$6.9 \cdot 10^{-2}$	940	$1.9 \cdot 10^{-5}$	1400	$9.5 \cdot 10^{-2}$	2900	0.712	4400	$1.3 \cdot 10^{-2}$
350	0.304	650	$4.1 \cdot 10^{-2}$	950	$2.2 \cdot 10^{-5}$	1450	0.147	2950	0.655	4450	$1.1 \cdot 10^{-2}$
360	0.509	660	$2.3 \cdot 10^{-2}$	960	$2.9 \cdot 10^{-5}$	1500	0.210	3000	0.607	4500	$8.2 \cdot 10^{-3}$
370	0.642	670	$1.3 \cdot 10^{-2}$	970	$3.7 \cdot 10^{-5}$	1550	0.281	3050	0.564	4550	$6.8 \cdot 10^{-3}$
380	0.721	680	$6.6 \cdot 10^{-3}$	980	$4.4 \cdot 10^{-5}$	1600	0.356	3100	0.522	4600	$6.7 \cdot 10^{-3}$
390	0.769	690	$3.4 \cdot 10^{-3}$	990	$5.6 \cdot 10^{-5}$	1650	0.433	3150	0.483	4650	$8.5 \cdot 10^{-3}$
400	0.802	700	$1.8 \cdot 10^{-3}$	1000	$7.2 \cdot 10^{-5}$	1700	0.504	3200	0.448	4700	$1.4 \cdot 10^{-2}$
410	0.826	710	$8.8 \cdot 10^{-4}$	1010	$9.4 \cdot 10^{-5}$	1750	0.570	3250	0.417	4750	$2.2 \cdot 10^{-2}$
420	0.846	720	$4.5 \cdot 10^{-4}$	1020	$1.2 \cdot 10^{-4}$	1800	0.628	3300	0.392	4800	$3.4 \cdot 10^{-2}$
430	0.863	730	$2.4 \cdot 10^{-4}$	1030	$1.6 \cdot 10^{-4}$	1850	0.681	3350	0.371	4850	$4.7 \cdot 10^{-2}$
440	0.878	740	$1.3 \cdot 10^{-4}$	1040	$2.1 \cdot 10^{-4}$	1900	0.728	3400	0.356	4900	$6.3 \cdot 10^{-2}$
450	0.892	750	$7.1 \cdot 10^{-5}$	1050	$2.4 \cdot 10^{-4}$	1950	0.761	3450	0.346	4950	$8.5 \cdot 10^{-2}$
460	0.904	760	$4.2 \cdot 10^{-5}$	1060	$3.2 \cdot 10^{-4}$	2000	0.794	3500	0.342	5000	0.110
470	0.912	770	$2.6 \cdot 10^{-5}$	1070	$4.0 \cdot 10^{-4}$	2050	0.821	3550	0.345	5050	0.133
480	0.919	780	$1.7 \cdot 10^{-5}$	1080	$5.1 \cdot 10^{-4}$	2100	0.846	3600	0.352	5100	0.151
490	0.925	790	$1.2 \cdot 10^{-5}$	1090	$6.5 \cdot 10^{-4}$	2150	0.862	3650	0.366	5150	0.158