

## BG62HT

Optical properties	
<b>Reflection factor</b>	
$P_d$	= 0,914
<b>Spectral values guaranteed</b>	
$\tau_i$ (405 nm)	≥ 0,8
$\tau_i$ (514 nm)	≥ 0,9
$\tau_i$ (633 nm)	≥ 0,08
$\tau_i$ (694 nm)	≤ 0,004
$\tau_i$ (1060 nm)	≤ 0,0005
<b>Refractive indices</b>	
$n_F$ (486 nm)	= 1,55
$n_e$ (546 nm)	= 1,54
$n_d$ (587,6 nm)	= 1,54
<b>Sellmeier coefficients</b>	
valid from 340 nm to 1550 nm	
$B_1$	1,2129
$B_2$	0,1238
$B_3$	0,0621
$C_1$	6,667E-03 $\mu\text{m}^2$
$C_2$	3,0034E-02 $\mu\text{m}^2$
$C_3$	12,219 $\mu\text{m}^2$
<b>Internal quality</b>	
Bubble class	2

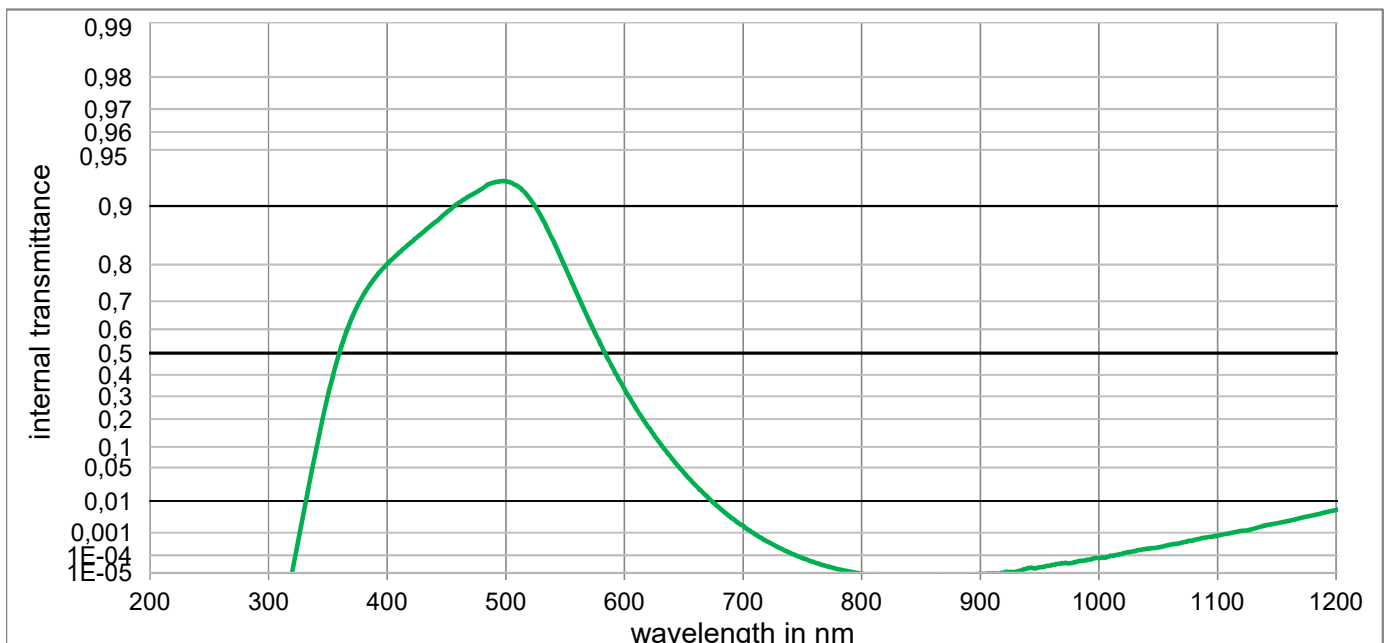
Mechanical properties	
<b>Reference thickness</b>	
$d$	= 1,00 mm
<b>Density</b>	
$\rho$	= 2,85 g/cm <sup>3</sup>
<b>Knoop hardness</b>	
HK[0.1/20]	= 368

Thermal properties	
<b>Transformation temperature</b>	
$T_g$	= 410 °C
<b>Thermal expansion in 10<sup>-6</sup>/K</b>	
$\alpha$ (-30°C/+70°C)	= 11,8
$\alpha$ (20°C/300°C)	= 13,7

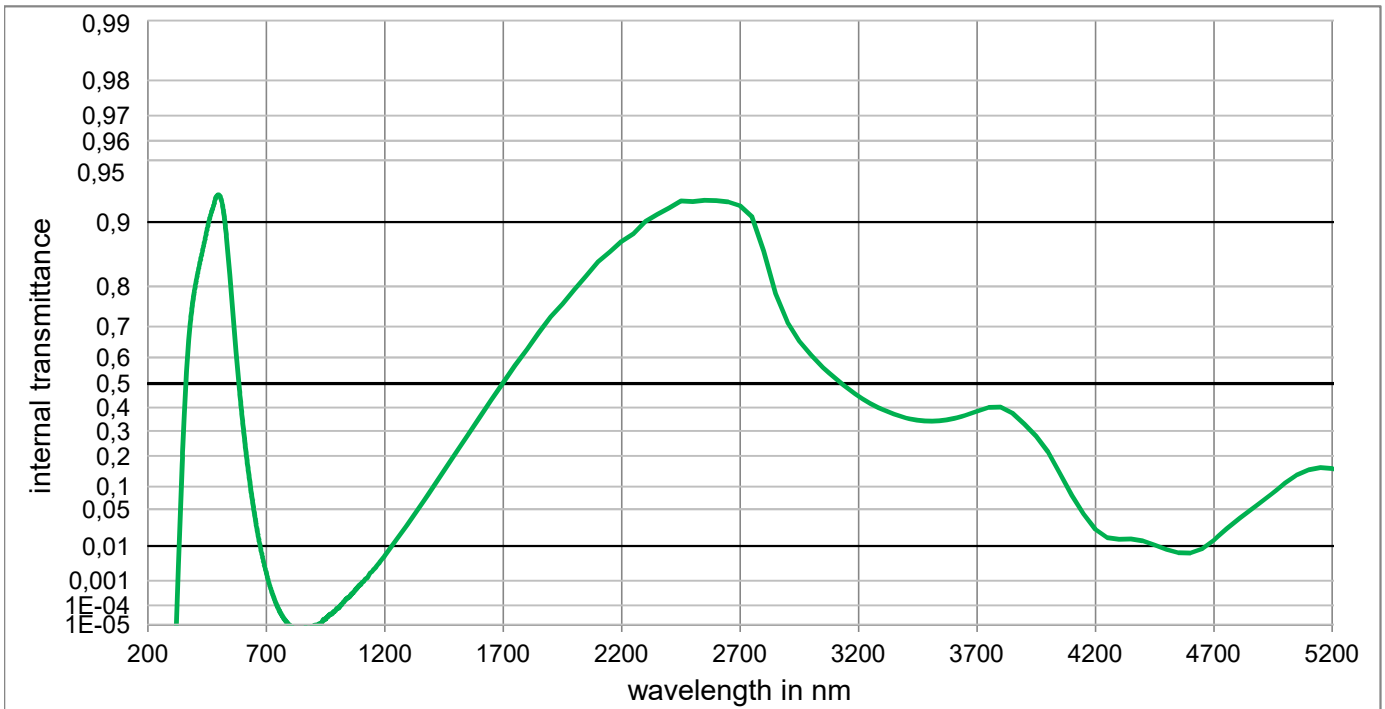
Chemical properties	
<b>Chemical resistance</b>	
FR class	= 1
SR class	= 52.3
AR class	= 3.3
Long-term changes in the polished surface are possible under some circumstances.	

Colorimetric properties				
		1 mm	2 mm	3 mm
Illuminant D65	x	0,226	0,191	0,172
	y	0,314	0,299	0,288
	Y	60,8	46,6	37,7
	$\lambda_d$	489 nm	489 nm	488 nm
	$P_e$	0,326	0,468	0,546
Illuminant A	x	0,317	0,252	0,215
	y	0,438	0,438	0,430
	Y	52,0	36,9	28,4
	$\lambda_d$	499 nm	497 nm	496 nm
	$P_e$	0,299	0,452	0,542

Notes	
Ionically colored glass	
Bandpass filter / Shortpass filter	
NIR cutoff filter	
$\lambda_{50\%}(d=0.21\text{mm}) = 644 \text{ nm}$	
DIN 58131	
Disclaimer	
All data without tolerances are to be understood to be reference values	



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**Internal transmittance  $\tau_i$  at reference thickness**  
 The internal transmittance values, tabulated and graphically represented, are reference values only

$\lambda$ /nm	$\tau_i$	$\lambda$ /nm	$\tau_i$	$\lambda$ /nm	$\tau_i$	$\lambda$ /nm	$\tau_i$	$\lambda$ /nm	$\tau_i$	$\lambda$ /nm	$\tau_i$
200	< 1,0E-05	500	9,261E-01	800	< 1,000E-05	1100	7,708E-04	2200	8,764E-01	3700	3,841E-01
210	< 1,0E-05	510	9,214E-01	810	< 1,000E-05	1110	9,495E-04	2250	8,864E-01	3750	4,004E-01
220	< 1,0E-05	520	9,089E-01	820	< 1,000E-05	1120	1,194E-03	2300	9,006E-01	3800	4,015E-01
230	< 1,0E-05	530	8,856E-01	830	< 1,000E-05	1130	1,417E-03	2350	9,081E-01	3850	3,755E-01
240	< 1,0E-05	540	8,483E-01	840	< 1,000E-05	1140	1,889E-03	2400	9,143E-01	3900	3,297E-01
250	< 1,0E-05	550	7,945E-01	850	< 1,000E-05	1150	2,190E-03	2450	9,208E-01	3950	2,780E-01
260	< 1,0E-05	560	7,232E-01	860	< 1,000E-05	1160	2,656E-03	2500	9,204E-01	4000	2,153E-01
270	< 1,0E-05	570	6,361E-01	870	< 1,000E-05	1170	3,280E-03	2550	9,214E-01	4050	1,386E-01
280	< 1,0E-05	580	5,373E-01	880	< 1,000E-05	1180	3,977E-03	2600	9,213E-01	4100	7,754E-02
290	< 1,0E-05	590	4,338E-01	890	< 1,000E-05	1190	4,816E-03	2650	9,202E-01	4150	4,183E-02
300	< 1,0E-05	600	3,335E-01	900	< 1,000E-05	1200	5,792E-03	2700	9,166E-01	4200	2,268E-02
310	< 1,0E-05	610	2,433E-01	910	< 1,000E-05	1250	1,420E-02	2750	9,057E-01	4250	1,526E-02
320	1,339E-05	620	1,683E-01	920	1,017E-05	1300	2,938E-02	2800	8,625E-01	4300	1,405E-02
330	5,930E-03	630	1,110E-01	930	1,146E-05	1350	5,598E-02	2850	7,851E-01	4350	1,440E-02
340	9,512E-02	640	6,912E-02	940	1,861E-05	1400	9,470E-02	2900	7,123E-01	4400	1,317E-02
350	3,042E-01	650	4,089E-02	950	2,151E-05	1450	1,470E-01	2950	6,549E-01	4450	1,057E-02
360	5,087E-01	660	2,308E-02	960	2,868E-05	1500	2,097E-01	3000	6,073E-01	4500	8,216E-03
370	6,420E-01	670	1,259E-02	970	3,657E-05	1550	2,813E-01	3050	5,638E-01	4550	6,843E-03
380	7,214E-01	680	6,615E-03	980	4,364E-05	1600	3,563E-01	3100	5,224E-01	4600	6,690E-03
390	7,694E-01	690	3,406E-03	990	5,597E-05	1650	4,329E-01	3150	4,834E-01	4650	8,518E-03
400	8,016E-01	700	1,849E-03	1000	7,191E-05	1700	5,036E-01	3200	4,482E-01	4700	1,353E-02
410	8,257E-01	710	8,801E-04	1010	9,398E-05	1750	5,702E-01	3250	4,175E-01	4750	2,221E-02
420	8,456E-01	720	4,531E-04	1020	1,185E-04	1800	6,281E-01	3300	3,919E-01	4800	3,359E-02
430	8,627E-01	730	2,360E-04	1030	1,571E-04	1850	6,812E-01	3350	3,714E-01	4850	4,702E-02
440	8,779E-01	740	1,276E-04	1040	2,103E-04	1900	7,279E-01	3400	3,556E-01	4900	6,337E-02
450	8,919E-01	750	7,146E-05	1050	2,391E-04	1950	7,606E-01	3450	3,461E-01	4950	8,489E-02
460	9,036E-01	760	4,179E-05	1060	3,161E-04	2000	7,936E-01	3500	3,419E-01	5000	1,098E-01
470	9,121E-01	770	2,577E-05	1070	4,016E-04	2050	8,208E-01	3550	3,445E-01	5050	1,335E-01
480	9,190E-01	780	1,695E-05	1080	5,109E-04	2100	8,458E-01	3600	3,524E-01	5100	1,508E-01
490	9,251E-01	790	1,170E-05	1090	6,481E-04	2150	8,616E-01	3650	3,662E-01	5150	1,578E-01