

## BG66HS

Optical properties	
<b>Reflection factor</b>	
$P_d$	= 0,913
<b>Spectral values guaranteed</b>	
$\tau_i$ (405 nm)	≥ 0,71
$\tau_i$ (514 nm)	≥ 0,85
$\tau_i$ (633 nm)	≥ 0,04
$\tau_i$ (694 nm)	≤ 0,0025
$\tau_i$ (1060 nm)	≤ 0,0004
<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 365 nm to 1550 nm	
$B_1$	0,8063
$B_2$	0,5354
$B_3$	0,7669
$C_1$	3,349E-03 $\mu\text{m}^2$
$C_2$	1,7804E-02 $\mu\text{m}^2$
$C_3$	131,310 $\mu\text{m}^2$
<b>Internal quality</b>	
Bubble class	2

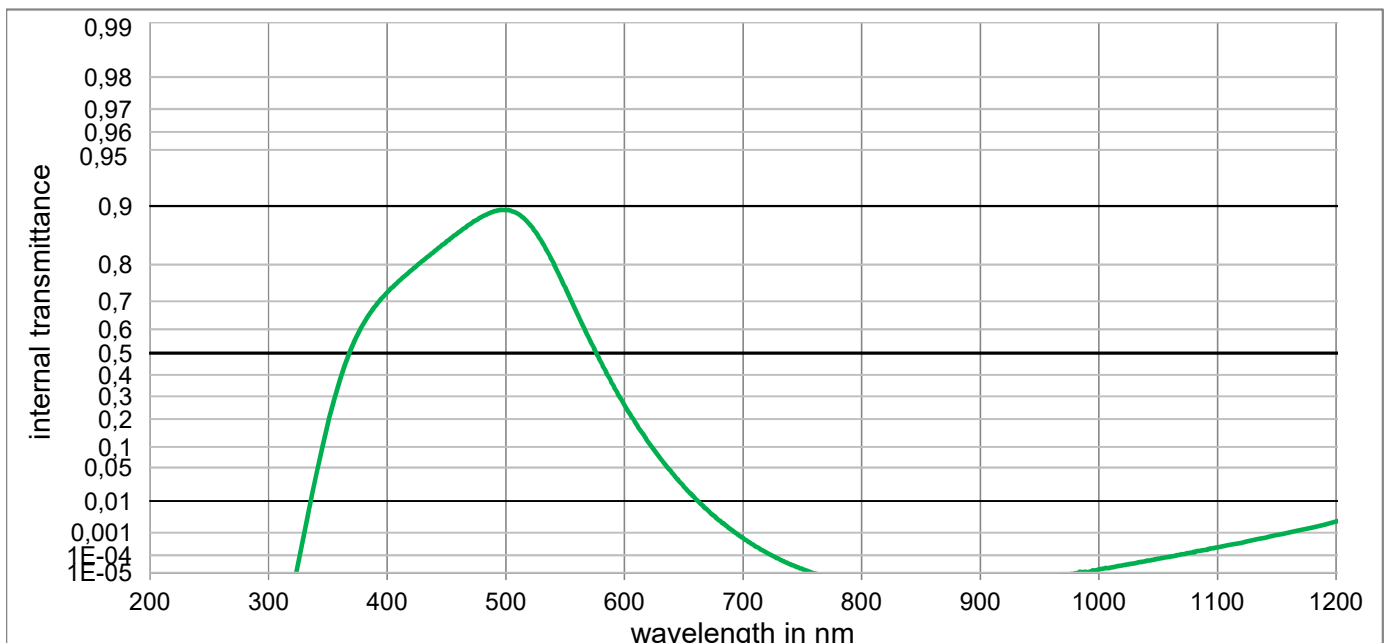
Mechanical properties	
<b>Reference thickness</b>	
$d$	= 1,00 mm
<b>Density</b>	
$\rho$	= 2,87 g/cm <sup>3</sup>
<b>Knoop hardness</b>	
HK[0.1/20]	= 385

Thermal properties	
<b>Transformation temperature</b>	
$T_g$	= 425 °C
<b>Thermal expansion in 10<sup>-6</sup>/K</b>	
$\alpha$ (-30°C/+70°C)	= 11,5
$\alpha$ (20°C/300°C)	= 13,3

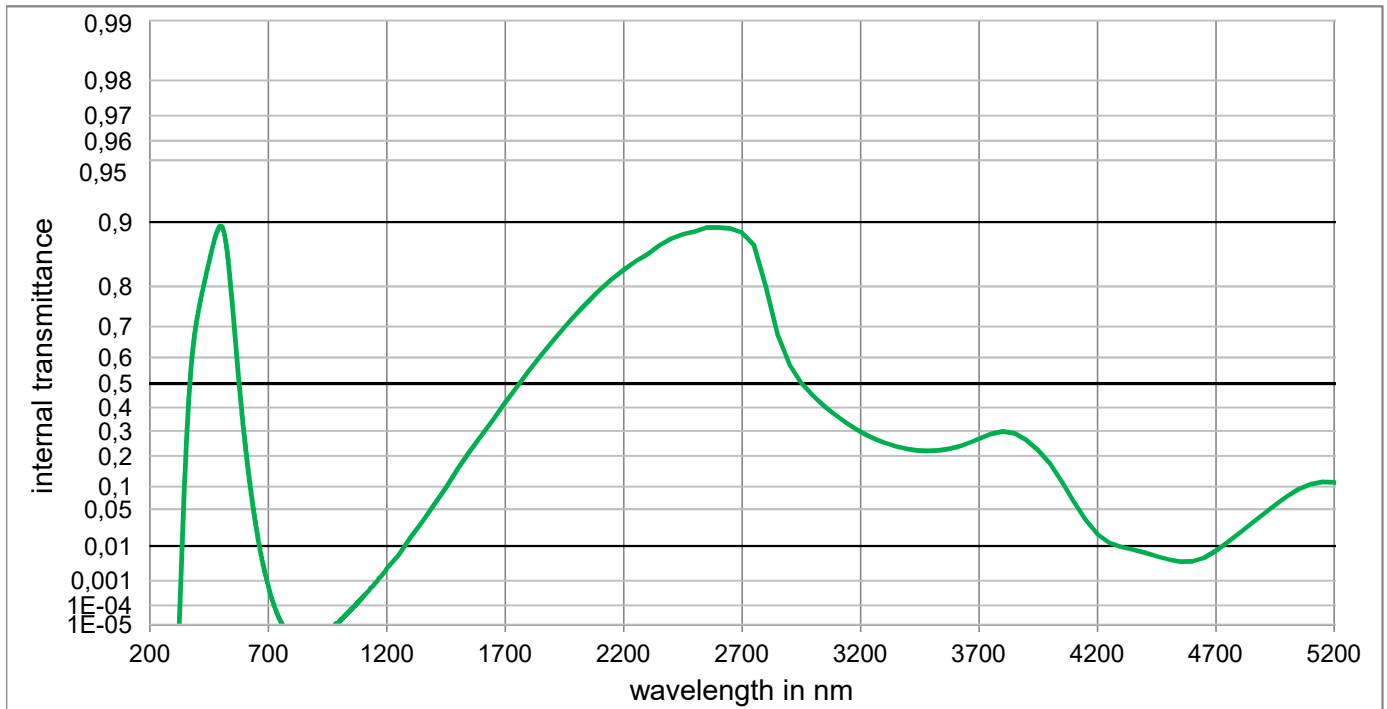
Chemical properties	
<b>Chemical resistance</b>	
FR class	
SR class	= 52,3
AR class	
<p>Long-term changes in the polished surface are possible under some circumstances.</p>	

Colorimetric properties				
		1 mm	2 mm	3 mm
Illuminant D65	x	0,217	0,182	0,164
	y	0,313	0,298	0,288
	Y	56,0	40,9	31,9
	$\lambda_d$	489 nm	489 nm	488 nm
	$P_e$	0,362	0,502	0,576
Illuminant A	x	0,300	0,234	0,198
	y	0,440	0,438	0,430
	Y	47,0	31,7	23,5
	$\lambda_d$	499 nm	497 nm	496 nm
	$P_e$	0,338	0,495	0,581

Notes	
Ionically colored glass	
Bandpass filter / Shortpass filter	
NIR cutoff filter	
$\lambda_{50\%}(d=0.21\text{mm}) = 634 \text{ nm}$	
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	$\tau_i$	$\lambda$ /nm	$\tau_i$
200	< 1,0E-05	500	8,950E-01	800	< 1,000E-05	1100	2,451E-04	2200	8,318E-01	3700	2,668E-01		
210	< 1,0E-05	510	8,901E-01	810	< 1,000E-05	1110	3,149E-04	2250	8,467E-01	3750	2,868E-01		
220	< 1,0E-05	520	8,752E-01	820	< 1,000E-05	1120	3,900E-04	2300	8,577E-01	3800	2,981E-01		
230	< 1,0E-05	530	8,479E-01	830	< 1,000E-05	1130	5,114E-04	2350	8,709E-01	3850	2,898E-01		
240	< 1,0E-05	540	8,039E-01	840	< 1,000E-05	1140	6,304E-04	2400	8,798E-01	3900	2,617E-01		
250	< 1,0E-05	550	7,414E-01	850	< 1,000E-05	1150	8,148E-04	2450	8,858E-01	3950	2,215E-01		
260	< 1,0E-05	560	6,603E-01	860	< 1,000E-05	1160	1,017E-03	2500	8,891E-01	4000	1,714E-01		
270	< 1,0E-05	570	5,644E-01	870	< 1,000E-05	1170	1,283E-03	2550	8,938E-01	4050	1,138E-01		
280	< 1,0E-05	580	4,600E-01	880	< 1,000E-05	1180	1,561E-03	2600	8,939E-01	4100	6,435E-02		
290	< 1,0E-05	590	3,557E-01	890	< 1,000E-05	1190	1,978E-03	2650	8,927E-01	4150	3,347E-02		
300	< 1,0E-05	600	2,598E-01	900	< 1,000E-05	1200	2,514E-03	2700	8,877E-01	4200	1,817E-02		
310	< 1,0E-05	610	1,786E-01	910	< 1,000E-05	1250	6,007E-03	2750	8,715E-01	4250	1,184E-02		
320	< 1,000E-05	620	1,154E-01	920	< 1,000E-05	1300	1,525E-02	2800	8,004E-01	4300	9,431E-03		
330	9,746E-04	630	7,064E-02	930	< 1,000E-05	1350	3,121E-02	2850	6,770E-01	4350	8,061E-03		
340	3,686E-02	640	4,057E-02	940	< 1,000E-05	1400	5,831E-02	2900	5,736E-01	4400	6,827E-03		
350	1,848E-01	650	2,192E-02	950	< 1,000E-05	1450	9,706E-02	2950	5,020E-01	4450	5,629E-03		
360	3,750E-01	660	1,135E-02	960	< 1,000E-05	1500	1,543E-01	3000	4,490E-01	4500	4,562E-03		
370	5,257E-01	670	5,713E-03	970	< 1,000E-05	1550	2,162E-01	3050	4,039E-01	4550	3,951E-03		
380	6,234E-01	680	2,706E-03	980	< 1,000E-05	1600	2,816E-01	3100	3,635E-01	4600	4,022E-03		
390	6,849E-01	690	1,310E-03	990	1,098E-05	1650	3,501E-01	3150	3,275E-01	4650	5,088E-03		
400	7,276E-01	700	6,095E-04	1000	1,558E-05	1700	4,212E-01	3200	2,968E-01	4700	7,678E-03		
410	7,600E-01	710	2,798E-04	1010	2,078E-05	1750	4,883E-01	3250	2,714E-01	4750	1,229E-02		
420	7,860E-01	720	1,318E-04	1020	2,785E-05	1800	5,511E-01	3300	2,513E-01	4800	1,932E-02		
430	8,087E-01	730	6,345E-05	1030	3,659E-05	1850	6,065E-01	3350	2,363E-01	4850	2,904E-02		
440	8,292E-01	740	3,181E-05	1040	4,852E-05	1900	6,553E-01	3400	2,259E-01	4900	4,150E-02		
450	8,471E-01	750	1,671E-05	1050	6,733E-05	1950	6,989E-01	3450	2,202E-01	4950	5,726E-02		
460	8,626E-01	760	< 1,000E-05	1060	8,545E-05	2000	7,349E-01	3500	2,192E-01	5000	7,547E-02		
470	8,758E-01	770	< 1,000E-05	1070	1,127E-04	2050	7,661E-01	3550	2,233E-01	5050	9,314E-02		
480	8,864E-01	780	< 1,000E-05	1080	1,454E-04	2100	7,934E-01	3600	2,327E-01	5100	1,062E-01		
490	8,933E-01	790	< 1,000E-05	1090	1,854E-04	2150	8,150E-01	3650	2,474E-01	5150	1,124E-01		