Data Sheet

BG66

Optical properties			
Reflection factor			
	P_d	=	0,914
Spectral values guaranteed			
τ_i (430 nm)		≥	0,815
τ_i (514 nm)		≥	0,89
τ_i (565 nm)		≥	0,615
τ_i (694 nm)		≤	0,0015
τ_i (1060 nm)		≤	0,0002
Refractive indices			
n_F (486 nm)		=	1,54
n_e (546 nm)		=	1,54
n_d (587,6 nm)		=	1,54
Sellmeier coefficients			
valid from 440 nm to 1550 nm			
B_1	1,3353		
B_2	0,0004		
B_3	0,6203		
C_1	8,684E-03	µm²	
C_2	2,0582E-02	µm²	
C_3	100,000	µm²	
Internal quality			
Bubble class	0		

Mechanical properties			
Reference thickness			
	d	=	1,00 mm
Density			
	ρ	=	2,85 g/cm³
Knoop hardness			
HK[0.1/20]		=	373

Thermal properties			
Transformation temperature			
	Tg	=	416 °C
Thermal expansion in			10^{-6}/K
$\alpha_{(-30°C/+70°C)}$		=	11,8
$\alpha_{(20°C/300°C)}$		=	13,7

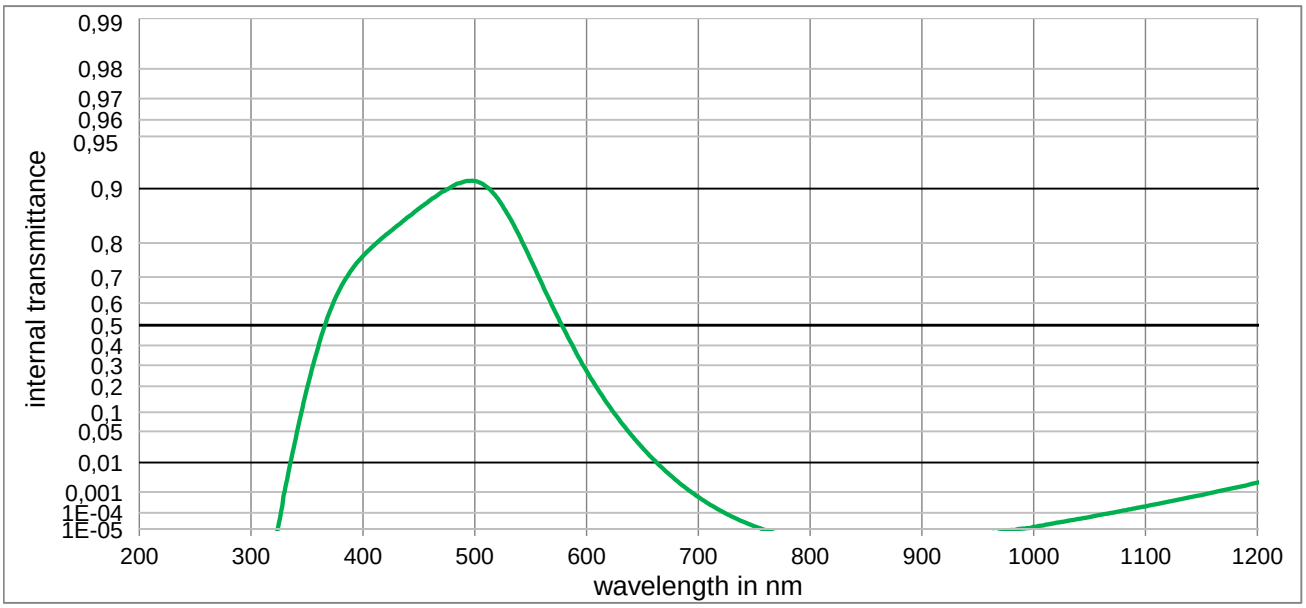
Chemical properties			
Chemical resistance			
	FR class		
	SR class	=	52.3
	AR class	=	3.3
Resistance against humidity			
Resistant glass			
see pocket catalogue "Optical Filter Glass 2020", chapter 5.5			

Colormetric properties				
		1 mm	2 mm	3 mm
Illuminant D65	x	0,218	0,183	0,165
	y	0,313	0,297	0,286
	Y	57,0	42,1	33,1
	λ_d	489 nm	489 nm	488 nm
	P_e	0,356	0,497	0,571
Illuminant A	x	0,303	0,237	0,202
	y	0,440	0,438	0,429
	Y	48,0	32,8	24,5
	λ_d	499 nm	497 nm	496 nm
	P_e	0,332	0,487	0,574

Notes
Ionically colored glass
Bandpass filter / Shortpass filter
NIR cutoff filter
lambda_50%(d=0.21mm) @ 635 nm
DIN 58131

Disclaimer

All data without tolerances are to be understood to be reference values.



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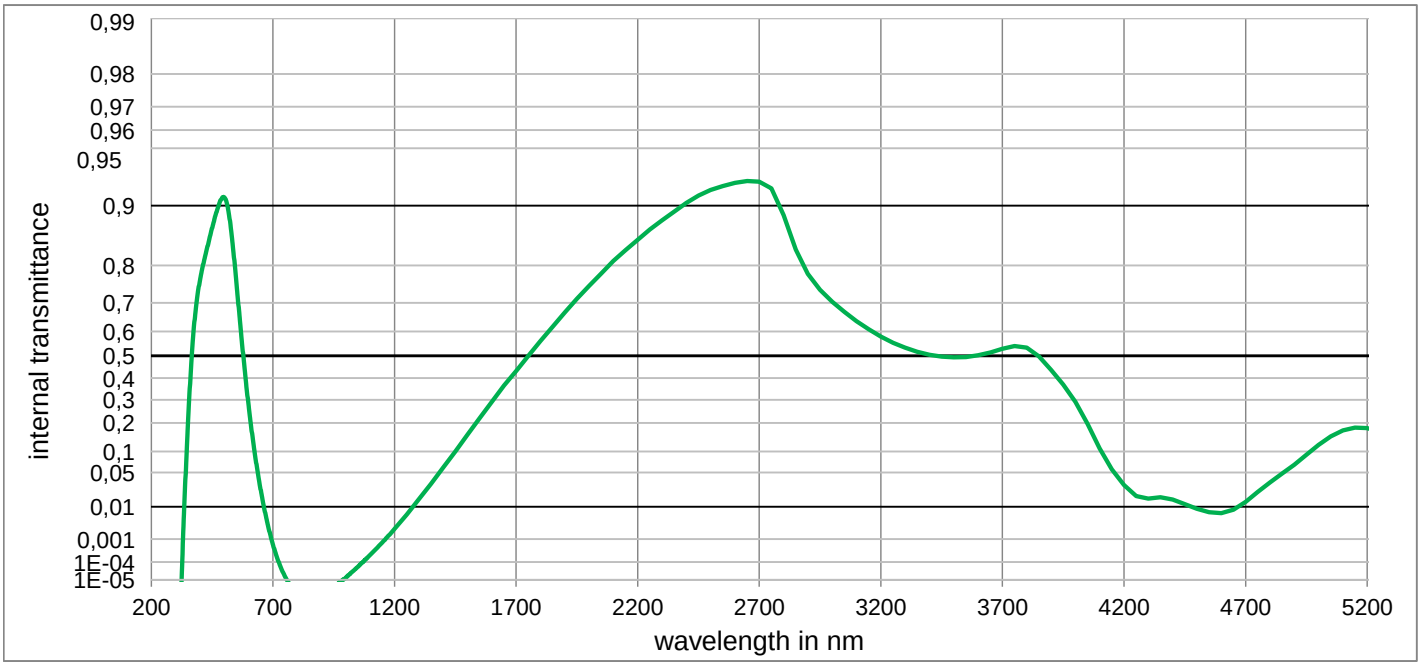

Internal transmittance ti at reference thickness
The internal transmittance values, tabulated and graphically represented, are reference values only

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	<	1,0E-05	500	9,094E-01	800	<	1,000E-05	1100	2,196E-04	2200	8,507E-01	3700	5,296E-01
210	<	1,0E-05	510	9,031E-01	810	<	1,000E-05	1110	2,858E-04	2250	8,676E-01	3750	5,413E-01
220	<	1,0E-05	520	8,874E-01	820	<	1,000E-05	1120	3,654E-04	2300	8,810E-01	3800	5,348E-01
230	<	1,0E-05	530	8,590E-01	830	<	1,000E-05	1130	4,675E-04	2350	8,927E-01	3850	4,976E-01
240	<	1,0E-05	540	8,165E-01	840	<	1,000E-05	1140	5,998E-04	2400	9,031E-01	3900	4,373E-01
250	<	1,0E-05	550	7,560E-01	850	<	1,000E-05	1150	7,406E-04	2450	9,113E-01	3950	3,702E-01
260	<	1,0E-05	560	6,770E-01	860	<	1,000E-05	1160	9,407E-04	2500	9,170E-01	4000	2,907E-01
270	<	1,0E-05	570	5,822E-01	870	<	1,000E-05	1170	1,191E-03	2550	9,209E-01	4050	1,956E-01
280	<	1,0E-05	580	4,782E-01	880	<	1,000E-05	1180	1,473E-03	2600	9,239E-01	4100	1,091E-01
290	<	1,0E-05	590	3,726E-01	890	<	1,000E-05	1190	1,816E-03	2650	9,256E-01	4150	5,625E-02
300	<	1,0E-05	600	2,720E-01	900	<	1,000E-05	1200	2,301E-03	2700	9,250E-01	4200	2,989E-02
310	<	1,0E-05	610	1,883E-01	910	<	1,000E-05	1250	6,219E-03	2750	9,187E-01	4250	1,788E-02
320	<	1,000E-05	620	1,222E-01	920	<	1,000E-05	1300	1,501E-02	2800	8,882E-01	4300	1,572E-02
330		1,069E-03	630	7,459E-02	930	<	1,000E-05	1350	3,166E-02	2850	8,326E-01	4350	1,676E-02
340		3,817E-02	640	4,295E-02	940	<	1,000E-05	1400	5,986E-02	2900	7,804E-01	4400	1,484E-02
350		1,903E-01	650	2,347E-02	950	<	1,000E-05	1450	1,006E-01	2950	7,387E-01	4450	1,165E-02
360		3,932E-01	660	1,207E-02	960	<	1,000E-05	1500	1,543E-01	3000	7,035E-01	4500	8,858E-03
370		5,584E-01	670	5,939E-03	970	<	1,000E-05	1550	2,192E-01	3050	6,707E-01	4550	7,190E-03
380		6,617E-01	680	2,832E-03	980	<	1,000E-05	1600	2,908E-01	3100	6,389E-01	4600	6,838E-03
390		7,246E-01	690	1,320E-03	990		1,054E-05	1650	3,659E-01	3150	6,083E-01	4650	8,472E-03
400		7,656E-01	700	6,092E-04	1000		1,418E-05	1700	4,320E-01	3200	5,802E-01	4700	1,325E-02
410		7,944E-01	710	2,779E-04	1010		1,905E-05	1750	4,998E-01	3250	5,554E-01	4750	2,175E-02
420		8,179E-01	720	1,290E-04	1020		2,566E-05	1800	5,622E-01	3300	5,344E-01	4800	3,342E-02
430		8,373E-01	730	6,140E-05	1030		3,340E-05	1850	6,185E-01	3350	5,175E-01	4850	4,796E-02
440		8,553E-01	740	3,033E-05	1040		4,450E-05	1900	6,680E-01	3400	5,044E-01	4900	6,617E-02
450		8,702E-01	750	1,534E-05	1050		5,799E-05	1950	7,125E-01	3450	4,961E-01	4950	9,066E-02
460		8,835E-01	760	< 1,000E-05	1060		7,729E-05	2000	7,496E-01	3500	4,929E-01	5000	1,200E-01
470		8,947E-01	770	< 1,000E-05	1070		1,000E-04	2050	7,815E-01	3550	4,948E-01	5050	1,486E-01
480		9,029E-01	780	< 1,000E-05	1080		1,319E-04	2100	8,096E-01	3600	5,022E-01	5100	1,706E-01
490		9,085E-01	790	< 1,000E-05	1090		1,712E-04	2150	8,319E-01	3650	5,144E-01	5150	1,811E-01