Data Sheet

BG61

Optical properties			
Reflection factor			
	P_d	=	0,915
Spectral values guaranteed			
τ_i (405 nm)		≥	0,84
τ_i (514 nm)		≥	0,93
τ_i (633 nm)		≥	0,18
τ_i (694 nm)		≤	0,03
τ_i (1060 nm)		≤	0,008
Refractive indices			
n_F (486 nm)		=	1,54
n_e (546 nm)		=	1,54
n_d (587,6 nm)		=	1,53
Sellmeier coefficients			
valid from 340 nm to 1550 nm			
B_1	1,3212		
B_2	0,0004		
B_3	0,0589		
C_1	9,180E-03	µm²	
C_2	1,1649E-01	µm²	
C_3	12,101	µm²	
Internal quality			
Bubble class	2		

Mechanical properties			
Reference thickness			
	d	=	1,00 mm
Density			
	ρ	=	2,81 g/cm³
Knoop hardness			
HK[0.1/20]		=	363

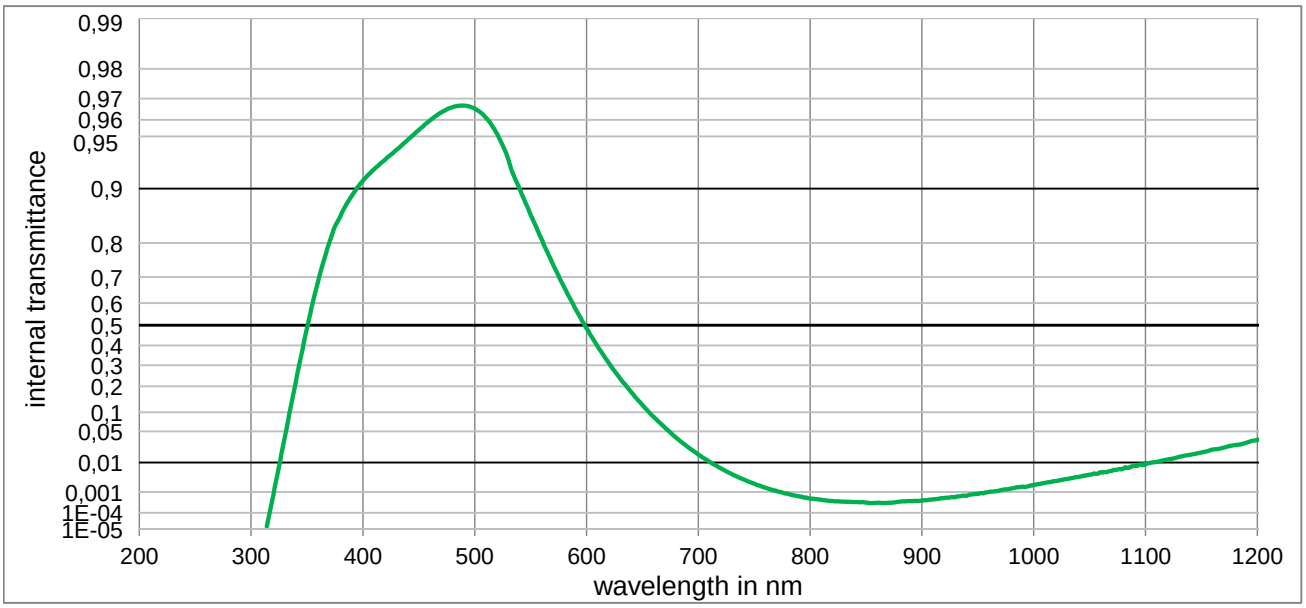
Thermal properties			
Transformation temperature			
	Tg	=	402 °C
Thermal expansion in			10^{-6}/K
$\alpha_{(-30°C/+70°C)}$		=	11,9
$\alpha_{(20°C/300°C)}$		=	13,9

Chemical properties			
Chemical resistance			
	FR class	=	1
	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	0,245	0,210	0,189
	y	0,319	0,307	0,296
	Y	68,0	55,2	46,7
	λ_d	490 nm	489 nm	488 nm
	P_e	0,254	0,391	0,476
Illuminant A	x	0,349	0,289	0,250
	y	0,432	0,438	0,435
	Y	60,4	45,7	36,9
	λ_d	499 nm	498 nm	497 nm
	P_e	0,225	0,365	0,458

Notes
Ionically colored glass
Bandpass filter / Shortpass filter
NIR cutoff filter
lambda_50%(d=0.3mm) = 648 nm
DIN 58131

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



Data Sheet

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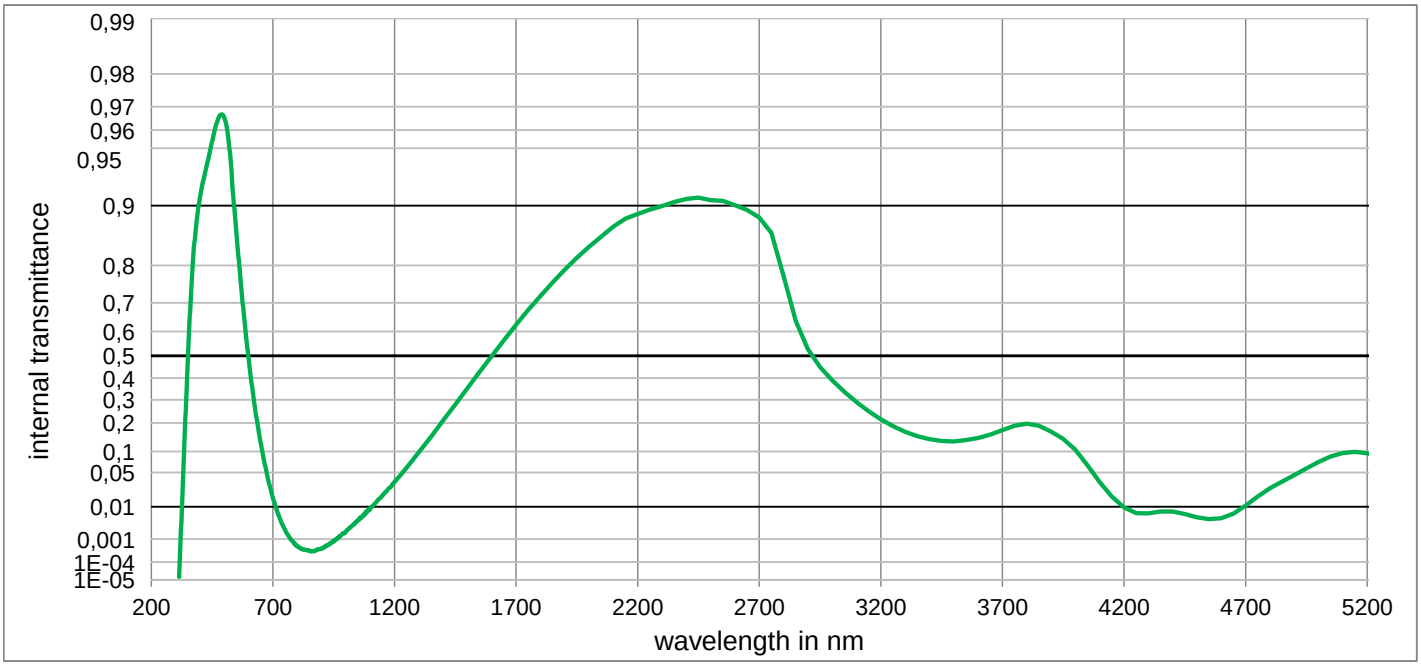

Internal transmittance ti at reference thickness
The internal transmittance values, tabulated and graphically represented, are reference values only

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	9,656E-01	800	5,193E-04	1100	9,044E-03	2200	8,897E-01	3700	1,718E-01
210	<	1,0E-05	510	9,612E-01	810	4,547E-04	1110	1,045E-02	2250	8,951E-01	3750	1,889E-01
220	<	1,0E-05	520	9,516E-01	820	3,958E-04	1120	1,210E-02	2300	8,995E-01	3800	1,973E-01
230	<	1,0E-05	530	9,326E-01	830	3,721E-04	1130	1,412E-02	2350	9,042E-01	3850	1,886E-01
240	<	1,0E-05	540	9,001E-01	840	3,530E-04	1140	1,599E-02	2400	9,076E-01	3900	1,668E-01
250	<	1,0E-05	550	8,602E-01	850	3,372E-04	1150	1,819E-02	2450	9,091E-01	3950	1,399E-01
260	<	1,0E-05	560	8,082E-01	860	3,277E-04	1160	2,144E-02	2500	9,064E-01	4000	1,051E-01
270	<	1,0E-05	570	7,417E-01	870	3,291E-04	1170	2,359E-02	2550	9,055E-01	4050	6,433E-02
280	<	1,0E-05	580	6,631E-01	880	3,728E-04	1180	2,664E-02	2600	9,005E-01	4100	3,430E-02
290	<	1,0E-05	590	5,767E-01	890	3,944E-04	1190	3,013E-02	2650	8,947E-01	4150	1,749E-02
300	<	1,0E-05	600	4,848E-01	900	4,116E-04	1200	3,407E-02	2700	8,849E-01	4200	9,654E-03
310	<	1,0E-05	610	3,949E-01	910	4,741E-04	1250	5,972E-02	2750	8,623E-01	4250	6,791E-03
320		8,279E-04	620	3,106E-01	920	5,553E-04	1300	9,768E-02	2800	7,744E-01	4300	6,709E-03
330		3,776E-02	630	2,359E-01	930	6,122E-04	1350	1,471E-01	2850	6,386E-01	4350	7,569E-03
340		2,218E-01	640	1,744E-01	940	6,917E-04	1400	2,110E-01	2900	5,289E-01	4400	7,518E-03
350		4,867E-01	650	1,247E-01	950	8,146E-04	1450	2,800E-01	2950	4,504E-01	4450	6,408E-03
360		6,867E-01	660	8,605E-02	960	9,997E-04	1500	3,528E-01	3000	3,893E-01	4500	5,234E-03
370		8,013E-01	670	5,862E-02	970	1,164E-03	1550	4,286E-01	3050	3,366E-01	4550	4,591E-03
380		8,579E-01	680	3,831E-02	980	1,375E-03	1600	4,994E-01	3100	2,896E-01	4600	4,923E-03
390		8,900E-01	690	2,506E-02	990	1,621E-03	1650	5,662E-01	3150	2,488E-01	4650	6,605E-03
400		9,099E-01	700	1,619E-02	1000	1,899E-03	1700	6,247E-01	3200	2,145E-01	4700	1,066E-02
410		9,225E-01	710	1,049E-02	1010	2,246E-03	1750	6,771E-01	3250	1,871E-01	4750	1,748E-02
420		9,320E-01	720	6,864E-03	1020	2,621E-03	1800	7,210E-01	3300	1,658E-01	4800	2,590E-02
430		9,401E-01	730	4,501E-03	1030	3,084E-03	1850	7,586E-01	3350	1,500E-01	4850	3,480E-02
440		9,475E-01	740	3,032E-03	1040	3,652E-03	1900	7,902E-01	3400	1,394E-01	4900	4,502E-02
450		9,542E-01	750	2,113E-03	1050	4,329E-03	1950	8,168E-01	3450	1,330E-01	4950	5,802E-02
460		9,597E-01	760	1,465E-03	1060	5,237E-03	2000	8,384E-01	3500	1,313E-01	5000	7,262E-02
470		9,638E-01	770	1,094E-03	1070	5,656E-03	2050	8,562E-01	3550	1,359E-01	5050	8,615E-02
480		9,663E-01	780	8,376E-04	1080	6,708E-03	2100	8,717E-01	3600	1,432E-01	5100	9,571E-02
490		9,670E-01	790	6,491E-04	1090	8,091E-03	2150	8,834E-01	3650	1,554E-01	5150	9,889E-02