Data Sheet

BG60HT

Optical properties			
Reflection factor			
	P_d	=	0,914
Spectral values guaranteed			
τ_i (405 nm)		≥	0,85
τ_i (514 nm)		≥	0,93
τ_i (633 nm)		≥	0,1
τ_i (694 nm)		≤	0,008
τ_i (1060 nm)		≤	0,0015
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 340 nm to 1550 nm			
B_1	1,3298		
B_2	0,0004		
B_3	2,5598		
C_1	9,241E-03	µm²	
C_2	1,0918E-01	µm²	
C_3	450,591	µm²	
Internal quality			
Bubble class	2		

Mechanical properties			
Reference thickness			
	d	=	1,00 mm
Density			
	ρ	=	2,83 g/cm³
Knoop hardness			
HK[0.1/20]		=	362

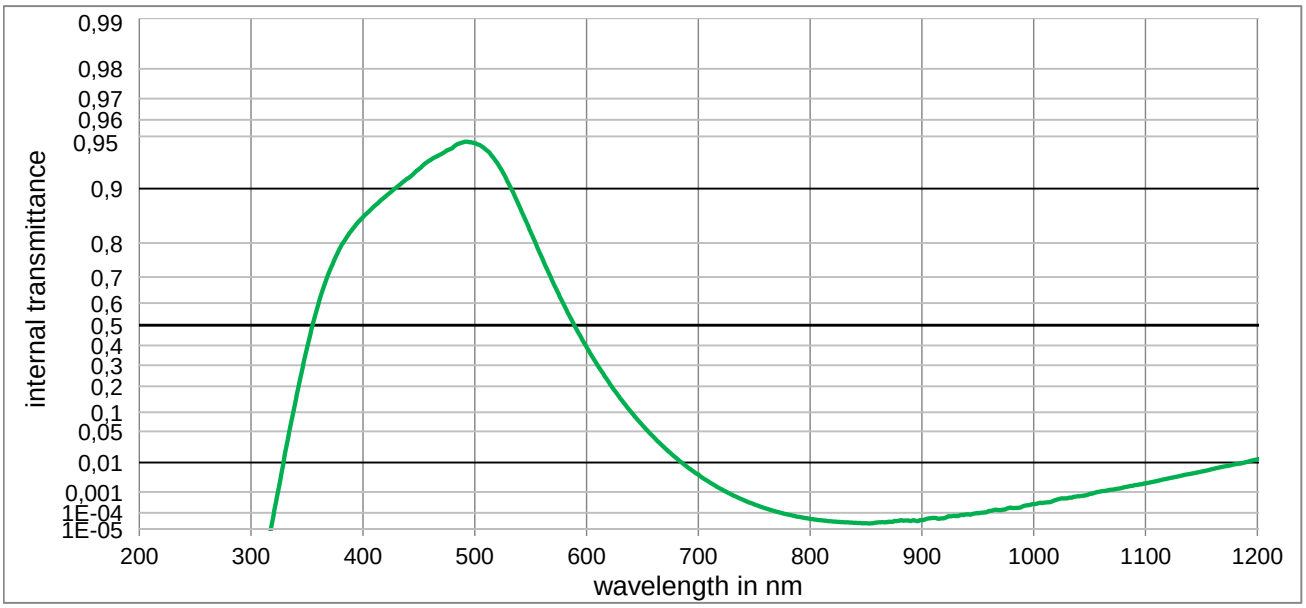
Thermal properties			
Transformation temperature			
	Tg	=	411 °C
Thermal expansion in			10^{-6}/K
$\alpha_{(-30°C/+70°C)}$		=	12,0
$\alpha_{(20°C/300°C)}$		=	13,9

Chemical properties			
Chemical resistance			
	FR class	=	1
	SR class	=	52.2
	AR class	=	3.2
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	0,233	0,198	0,178
	y	0,315	0,300	0,287
	Y	64,1	50,6	42,0
	λ_d	489 nm	488 nm	488 nm
	P_e	0,300	0,442	0,525
Illuminant A	x	0,330	0,266	0,227
	y	0,435	0,436	0,429
	Y	55,7	40,8	32,2
	λ_d	499 nm	498 nm	496 nm
	P_e	0,270	0,421	0,514

Notes
Ionically colored glass
Bandpass filter / Shortpass filter
NIR cutoff filter
lambda_50%(d=0.3mm) = 633 nm
DIN 58131

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



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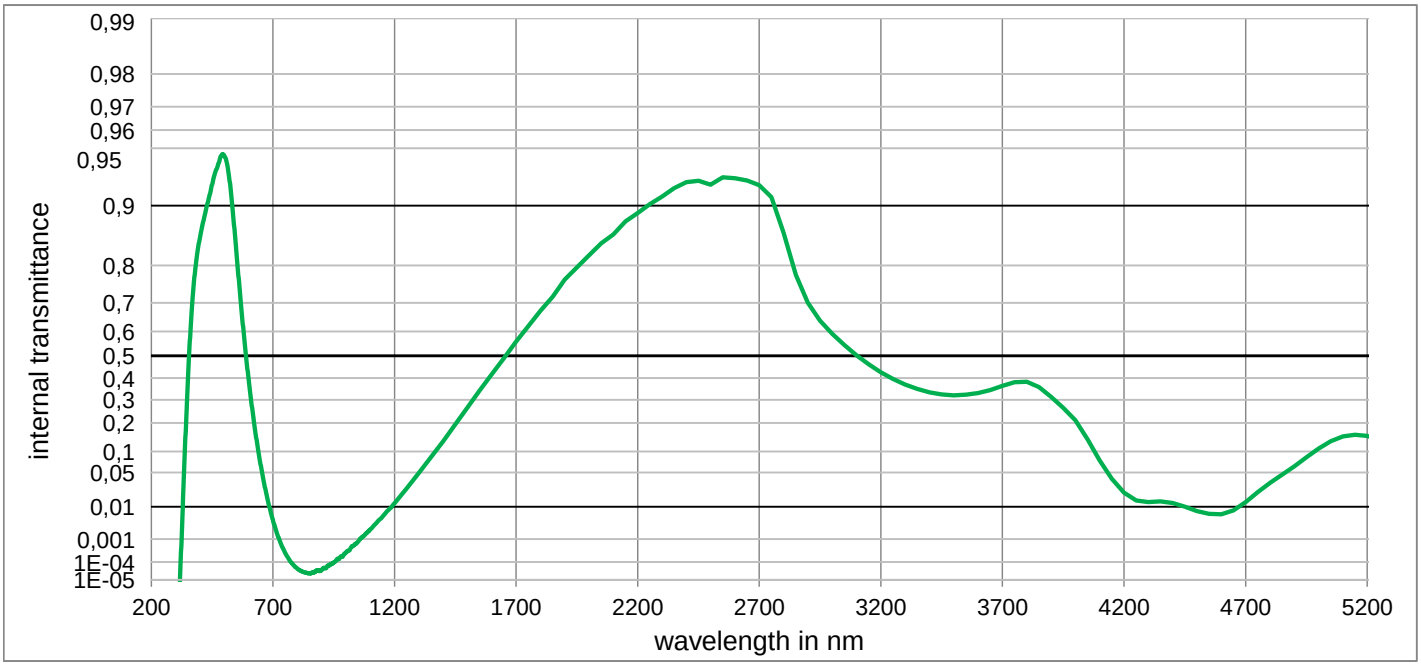

Internal transmittance ti at reference thickness
The internal transmittance values, tabulated and graphically represented, are reference values only

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	9,452E-01	800	4,502E-05	1100	2,177E-03	2200	8,909E-01	3700	3,635E-01
210	<	1,0E-05	510	9,404E-01	810	3,656E-05	1110	2,626E-03	2250	9,019E-01	3750	3,805E-01
220	<	1,0E-05	520	9,288E-01	820	3,119E-05	1120	3,188E-03	2300	9,103E-01	3800	3,826E-01
230	<	1,0E-05	530	9,073E-01	830	2,793E-05	1130	3,874E-03	2350	9,188E-01	3850	3,583E-01
240	<	1,0E-05	540	8,739E-01	840	2,564E-05	1140	4,603E-03	2400	9,246E-01	3900	3,143E-01
250	<	1,0E-05	550	8,260E-01	850	2,372E-05	1150	5,383E-03	2450	9,257E-01	3950	2,645E-01
260	<	1,0E-05	560	7,618E-01	860	2,639E-05	1160	6,519E-03	2500	9,222E-01	4000	2,114E-01
270	<	1,0E-05	570	6,817E-01	870	2,872E-05	1170	7,711E-03	2550	9,288E-01	4050	1,384E-01
280	<	1,0E-05	580	5,900E-01	880	3,410E-05	1180	8,976E-03	2600	9,279E-01	4100	7,617E-02
290	<	1,0E-05	590	4,908E-01	890	3,233E-05	1190	1,032E-02	2650	9,261E-01	4150	3,905E-02
300	<	1,0E-05	600	3,920E-01	900	3,719E-05	1200	1,224E-02	2700	9,218E-01	4200	2,110E-02
310	<	1,0E-05	610	2,994E-01	910	5,030E-05	1250	2,586E-02	2750	9,096E-01	4250	1,416E-02
320		7,415E-05	620	2,184E-01	920	4,952E-05	1300	4,890E-02	2800	8,624E-01	4300	1,306E-02
330		1,574E-02	630	1,509E-01	930	6,534E-05	1350	8,439E-02	2850	7,781E-01	4350	1,346E-02
340		1,447E-01	640	1,002E-01	940	8,100E-05	1400	1,324E-01	2900	7,003E-01	4400	1,236E-02
350		3,866E-01	650	6,391E-02	950	9,477E-05	1450	1,953E-01	2950	6,400E-01	4450	9,979E-03
360		5,939E-01	660	3,912E-02	960	1,248E-04	1500	2,655E-01	3000	5,905E-01	4500	7,775E-03
370		7,185E-01	670	2,310E-02	970	1,384E-04	1550	3,426E-01	3050	5,454E-01	4550	6,476E-03
380		7,901E-01	680	1,336E-02	980	1,873E-04	1600	4,175E-01	3100	5,027E-01	4600	6,340E-03
390		8,295E-01	690	7,552E-03	990	2,146E-04	1650	4,899E-01	3150	4,626E-01	4650	8,118E-03
400		8,554E-01	700	4,483E-03	1000	2,823E-04	1700	5,594E-01	3200	4,268E-01	4700	1,303E-02
410		8,740E-01	710	2,369E-03	1010	3,353E-04	1750	6,200E-01	3250	3,957E-01	4750	2,161E-02
420		8,890E-01	720	1,335E-03	1020	4,468E-04	1800	6,742E-01	3300	3,700E-01	4800	3,292E-02
430		9,016E-01	730	7,666E-04	1030	5,325E-04	1850	7,188E-01	3350	3,495E-01	4850	4,615E-02
440		9,125E-01	740	4,521E-04	1040	6,468E-04	1900	7,658E-01	3400	3,339E-01	4900	6,232E-02
450		9,226E-01	750	2,747E-04	1050	8,132E-04	1950	7,954E-01	3450	3,245E-01	4950	8,366E-02
460		9,312E-01	760	1,741E-04	1060	1,044E-03	2000	8,219E-01	3500	3,205E-01	5000	1,085E-01
470		9,365E-01	770	1,155E-04	1070	1,248E-03	2050	8,448E-01	3550	3,231E-01	5050	1,318E-01
480		9,417E-01	780	8,046E-05	1080	1,509E-03	2100	8,596E-01	3600	3,311E-01	5100	1,485E-01
490		9,460E-01	790	5,856E-05	1090	1,833E-03	2150	8,797E-01	3650	3,451E-01	5150	1,548E-01