

BG38

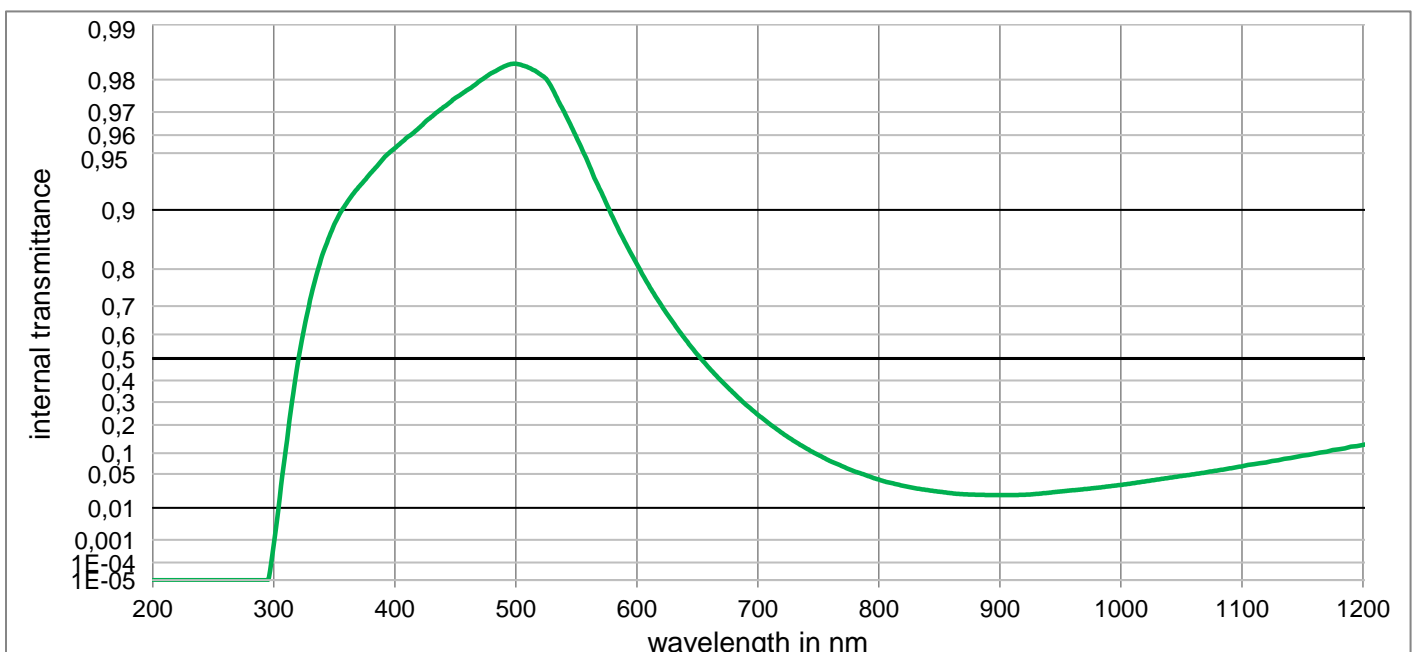
Optical properties	
Reflection factor	
$P_d = 0,916$	
Spectral values guaranteed	
τ_i (350 nm)	$\geq 0,8$
τ_i (405 nm)	$\geq 0,93$
τ_i (514 nm)	$\geq 0,95$
τ_i (633 nm)	$\leq 0,67$
τ_i (694 nm)	$\leq 0,32$
τ_i (1060 nm)	$\leq 0,06$
Refractive indices	
n_F (486 nm)	$= 1,533$
n_e (546 nm)	$= 1,529$
n_d (587,6 nm)	$= 1,527$
Sellmeier coefficients	
valid from 440 nm to 1550 nm	
B_1	0,3382
B_2	0,9643
B_3	1,7959
C_1	3,475E-03 μm^2
C_2	1,0319E-02 μm^2
C_3	190,755 μm^2
Internal quality	
Bubble class	2

Mechanical properties	
Reference thickness	
$d = 1,00 \text{ mm}$	
Density	
$\rho = 2,66 \text{ g/cm}^3$	
Knoop hardness	
HK[0.1/20] = 472	
Thermal properties	
Transformation temperature	
$T_g = 482 \text{ }^\circ\text{C}$	
Thermal expansion in $10^{-6}/\text{K}$	
α (-30 $^\circ\text{C}/+70^\circ\text{C}$)	$= 7,5$
α (20 $^\circ\text{C}/300^\circ\text{C}$)	$= 8,9$

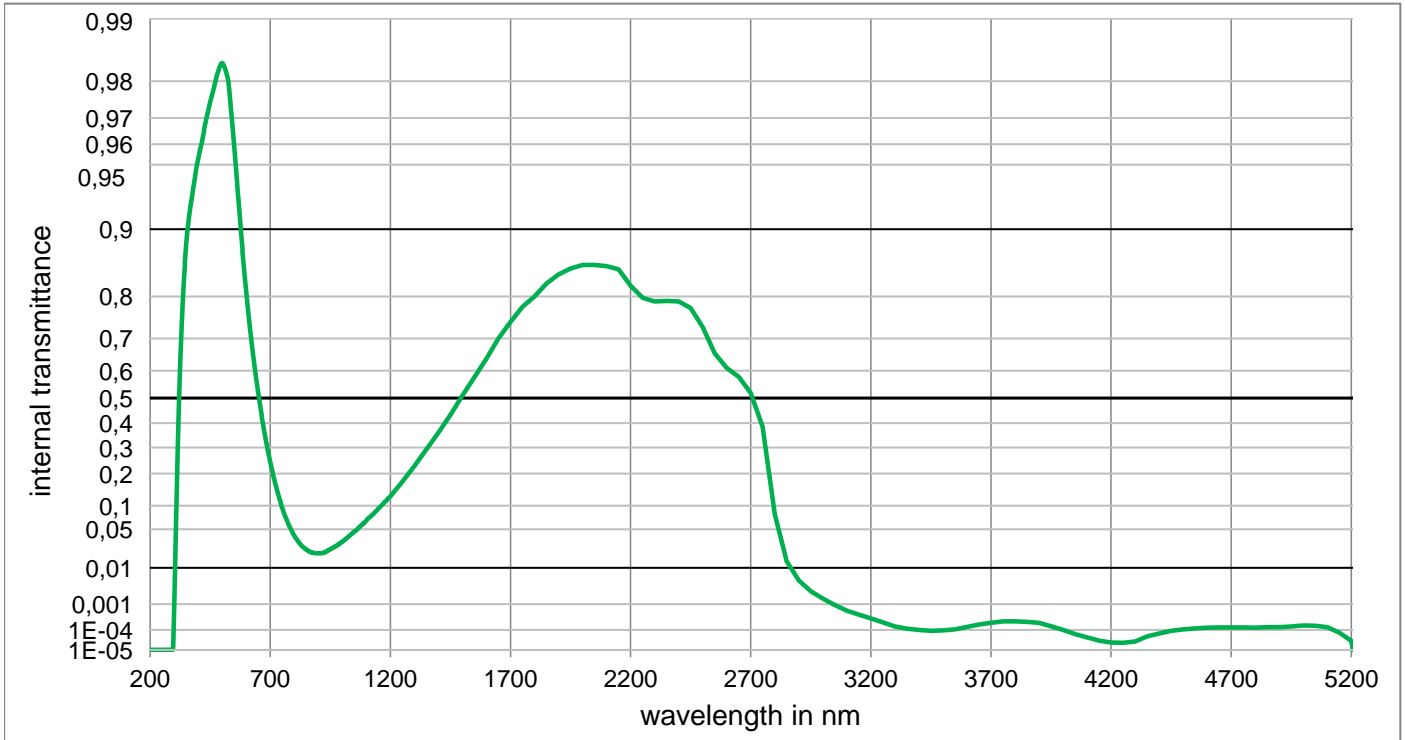
Chemical properties	
Chemical resistance	
FR class	$= 0$
SR class	$= 2$
AR class	$= 2$
Resistance against humidity	
Sensitive glass	
see pocket catalogue "Optical Filter Glass 2024", chapter 5.5	

Colormetric properties				
	1 mm	2 mm	3 mm	
Illuminant D65	x	0,288	0,268	0,253
	y	0,328	0,326	0,323
	Y	83,2	76,4	70,8
	λ_d	491 nm	491 nm	490 nm
	P_e	0,092	0,164	0,223
Illuminant A	x	0,413	0,384	0,360
	y	0,419	0,427	0,433
	Y	79,7	70,7	63,7
	λ_d	501 nm	500 nm	500 nm
P_e	0,078	0,144	0,200	

Notes	
Ionically colored glass	
Bandpass filter / Shortpass filter	
NIR cutoff filter	
ISO 23364:2021	
Disclaimer	
All data without tolerances are to be understood to be reference values.	



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Internal transmittance τ_i 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	< 1,000E-05	500	9,836E-01	800	4,002E-02	1100	6,593E-02	2200	8,208E-01	3700	2,000E-04
210	< 1,000E-05	510	9,829E-01	810	3,491E-02	1110	7,111E-02	2250	7,973E-01	3750	2,296E-04
220	< 1,000E-05	520	9,813E-01	820	3,080E-02	1120	7,524E-02	2300	7,897E-01	3800	2,317E-04
230	< 1,000E-05	530	9,777E-01	830	2,761E-02	1130	8,054E-02	2350	7,907E-01	3850	2,193E-04
240	< 1,000E-05	540	9,700E-01	840	2,539E-02	1140	8,631E-02	2400	7,897E-01	3900	2,000E-04
250	< 1,000E-05	550	9,590E-01	850	2,341E-02	1150	9,319E-02	2450	7,756E-01	3950	1,449E-04
260	< 1,000E-05	560	9,430E-01	860	2,183E-02	1160	9,869E-02	2500	7,300E-01	4000	1,000E-04
270	< 1,000E-05	570	9,210E-01	870	2,077E-02	1170	1,044E-01	2550	6,569E-01	4050	6,471E-05
280	< 1,000E-05	580	8,910E-01	880	2,026E-02	1180	1,113E-01	2600	6,100E-01	4100	4,436E-05
290	< 1,000E-05	590	8,540E-01	890	2,000E-02	1190	1,198E-01	2650	5,786E-01	4150	3,090E-05
300	6,457E-04	600	8,110E-01	900	1,991E-02	1200	1,258E-01	2700	5,200E-01	4200	2,500E-05
310	1,140E-01	610	7,600E-01	910	1,996E-02	1250	1,715E-01	2750	3,854E-01	4250	2,410E-05
320	4,870E-01	620	7,040E-01	920	2,020E-02	1300	2,281E-01	2800	8,000E-02	4300	2,818E-05
330	7,180E-01	630	6,440E-01	930	2,103E-02	1350	2,931E-01	2850	1,384E-02	4350	5,047E-05
340	8,290E-01	640	5,810E-01	940	2,227E-02	1400	3,600E-01	2900	5,000E-03	4400	6,776E-05
350	8,813E-01	650	5,180E-01	950	2,371E-02	1450	4,335E-01	2950	2,547E-03	4450	9,036E-05
360	9,077E-01	660	4,560E-01	960	2,505E-02	1500	5,100E-01	3000	1,531E-03	4500	1,047E-04
370	9,239E-01	670	3,970E-01	970	2,650E-02	1550	5,768E-01	3050	9,290E-04	4550	1,169E-04
380	9,359E-01	680	3,410E-01	980	2,805E-02	1600	6,400E-01	3100	6,000E-04	4600	1,247E-04
390	9,460E-01	690	2,890E-01	990	3,000E-02	1650	7,000E-01	3150	4,236E-04	4650	1,294E-04
400	9,530E-01	700	2,430E-01	1000	3,196E-02	1700	7,436E-01	3200	3,000E-04	4700	1,294E-04
410	9,587E-01	710	2,030E-01	1010	3,434E-02	1750	7,784E-01	3250	2,133E-04	4750	1,282E-04
420	9,634E-01	720	1,680E-01	1020	3,707E-02	1800	8,000E-01	3300	1,422E-04	4800	1,259E-04
430	9,680E-01	730	1,390E-01	1030	4,006E-02	1850	8,246E-01	3350	1,138E-04	4850	1,330E-04
440	9,717E-01	740	1,150E-01	1040	4,300E-02	1900	8,400E-01	3400	1,000E-04	4900	1,330E-04
450	9,748E-01	750	9,500E-02	1050	4,610E-02	1950	8,491E-01	3450	9,120E-05	4950	1,409E-04
460	9,772E-01	760	7,800E-02	1060	4,929E-02	2000	8,548E-01	3500	9,550E-05	5000	1,560E-04
470	9,796E-01	770	6,600E-02	1070	5,297E-02	2050	8,548E-01	3550	1,057E-04	5050	1,531E-04
480	9,816E-01	780	5,500E-02	1080	5,700E-02	2100	8,529E-01	3600	1,358E-04	5100	1,318E-04
490	9,830E-01	790	4,700E-02	1090	6,123E-02	2150	8,482E-01	3650	1,694E-04	5150	7,516E-05