

BG42

Optical properties	
Reflection factor	
$P_d = 0,914$	
Spectral values guaranteed	
τ_i (350 nm)	$\geq 0,4$
τ_i (405 nm)	$\geq 0,65$
τ_i (514 nm)	$\geq 0,88$
τ_i (633 nm)	$\leq 0,27$
τ_i (694 nm)	$\leq 0,03$
τ_i (1060 nm)	$\leq 0,002$
Refractive indices	
n_d (587,6 nm) = 1,54	
Sellmeier coefficients	
on request	
Internal quality	
Bubble class	2

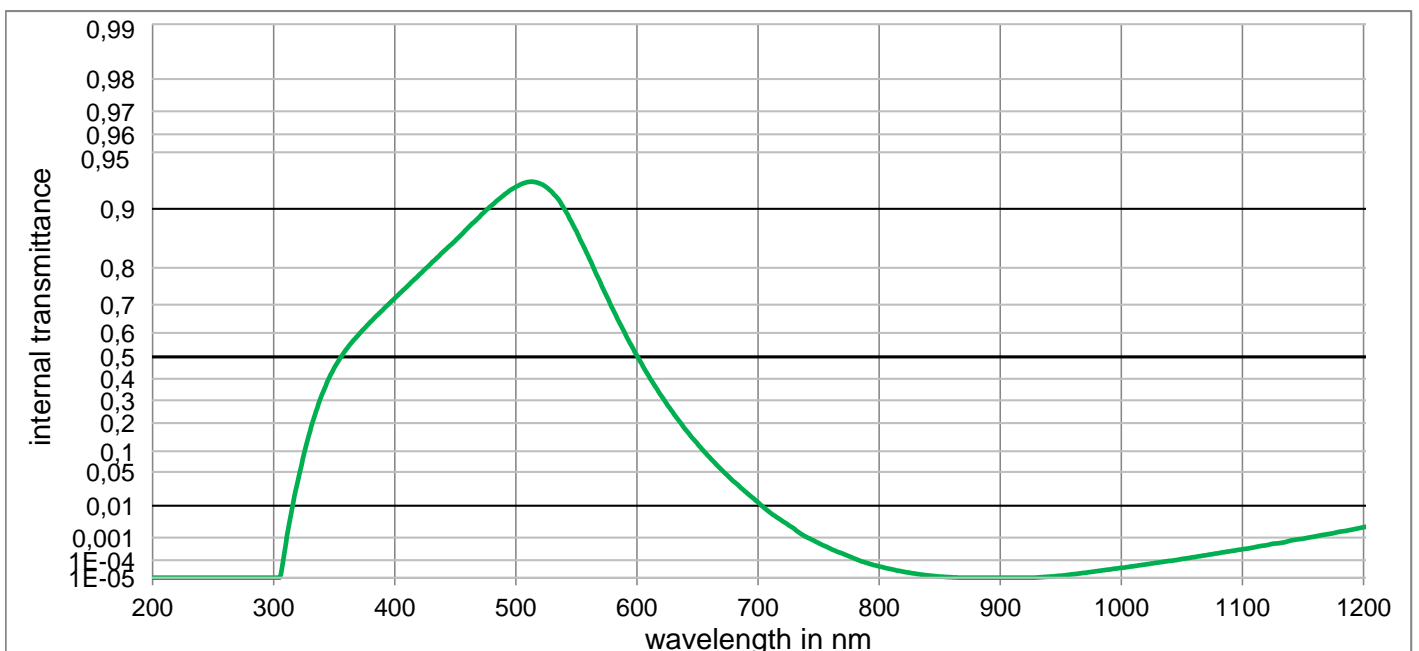
Mechanical properties	
Reference thickness	
d = 1,00 mm	
Density	
$\rho = 2,69 \text{ g/cm}^3$	
Knoop hardness	
HK[0.1/20] = 467	

Thermal properties	
Transformation temperature	
$T_g = 475 \text{ }^\circ\text{C}$	
Thermal expansion in $10^{-6}/\text{K}$	
α (-30°C/+70°C)	= 7,3
α (20°C/300°C)	= 8,7

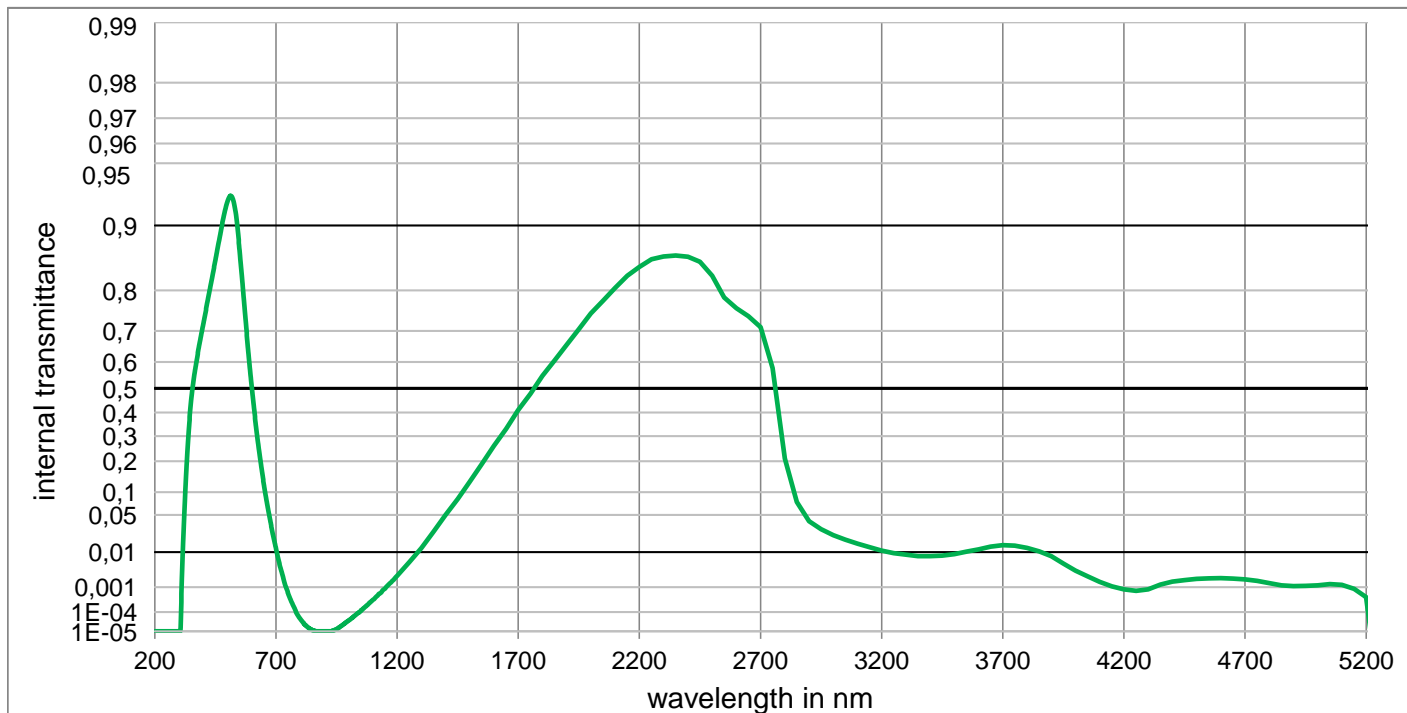
Chemical properties	
Chemical resistance	
FR class	= 0
SR class	= 2
AR class	= 2
Resistance against humidity	
Sensitive glass	
see pocket catalogue "Optical Filter Glass 2020", chapter 5.5	

Colormetric properties				
		1 mm	2 mm	3 mm
Illuminant D65	x	0,254	0,222	0,203
	y	0,332	0,334	0,337
	Y	68,1	55,2	46,4
	λ_d	492 nm	492 nm	492 nm
	P_e	0,214	0,325	0,393
Illuminant A	x	0,359	0,305	0,270
	y	0,439	0,456	0,466
	Y	61,1	46,6	37,6
	λ_d	501 nm	501 nm	501 nm
	P_e	0,201	0,323	0,403

Notes	
Ionically colored glass	
Bandpass filter / Shortpass filter	
NIR cutoff filter	
DIN 58131	
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	< 1,0E-05	500	9,234E-01	800	4,721E-05	1100	3,325E-04	2200	8,435E-01	3700	1,435E-02
210	< 1,0E-05	510	9,278E-01	810	3,258E-05	1110	4,084E-04	2250	8,557E-01	3750	1,396E-02
220	< 1,0E-05	520	9,265E-01	820	2,344E-05	1120	4,973E-04	2300	8,600E-01	3800	1,239E-02
230	< 1,0E-05	530	9,180E-01	830	1,770E-05	1130	6,020E-04	2350	8,614E-01	3850	1,035E-02
240	< 1,0E-05	540	9,000E-01	840	1,400E-05	1140	7,651E-04	2400	8,595E-01	3900	8,000E-03
250	< 1,0E-05	550	8,690E-01	850	1,183E-05	1150	8,992E-04	2450	8,519E-01	3950	5,212E-03
260	< 1,0E-05	560	8,240E-01	860	1,066E-05	1160	1,112E-03	2500	8,284E-01	4000	3,319E-03
270	< 1,0E-05	570	7,620E-01	870	< 1,000E-05	1170	1,339E-03	2550	7,850E-01	4050	2,234E-03
280	< 1,0E-05	580	6,860E-01	880	< 1,000E-05	1180	1,636E-03	2600	7,600E-01	4100	1,507E-03
290	< 1,0E-05	590	5,990E-01	890	< 1,000E-05	1190	1,926E-03	2650	7,400E-01	4150	1,064E-03
300	< 1,0E-05	600	5,050E-01	900	< 1,000E-05	1200	2,342E-03	2700	7,106E-01	4200	8,356E-04
310	5,7E-04	610	4,100E-01	910	< 1,000E-05	1250	5,700E-03	2750	5,777E-01	4250	7,413E-04
320	3,500E-02	620	3,210E-01	920	< 1,000E-05	1300	1,230E-02	2800	2,100E-01	4300	8,414E-04
330	1,680E-01	630	2,420E-01	930	1,035E-05	1350	2,640E-02	2850	7,586E-02	4350	1,230E-03
340	3,280E-01	640	1,750E-01	940	1,164E-05	1400	5,000E-02	2900	4,000E-02	4400	1,549E-03
350	4,510E-01	650	1,230E-01	950	1,341E-05	1450	8,290E-02	2950	2,931E-02	4450	1,718E-03
360	5,330E-01	660	8,300E-02	960	1,644E-05	1500	1,300E-01	3000	2,280E-02	4500	1,879E-03
370	5,930E-01	670	5,370E-02	970	2,037E-05	1550	1,904E-01	3050	1,854E-02	4550	1,959E-03
380	6,420E-01	680	3,400E-02	980	2,541E-05	1600	2,600E-01	3100	1,538E-02	4600	2,000E-03
390	6,830E-01	690	2,079E-02	990	3,155E-05	1650	3,308E-01	3150	1,291E-02	4650	1,932E-03
400	7,200E-01	700	1,216E-02	1000	3,890E-05	1700	4,100E-01	3200	1,086E-02	4700	1,828E-03
410	7,530E-01	710	6,530E-03	1010	4,820E-05	1750	4,778E-01	3250	9,462E-03	4750	1,637E-03
420	7,830E-01	720	3,740E-03	1020	5,998E-05	1800	5,485E-01	3300	8,710E-03	4800	1,377E-03
430	8,100E-01	730	2,027E-03	1030	7,447E-05	1850	6,060E-01	3350	8,072E-03	4850	1,156E-03
440	8,337E-01	740	1,047E-03	1040	9,247E-05	1900	6,578E-01	3400	8,000E-03	4900	1,079E-03
450	8,540E-01	750	6,120E-04	1050	1,153E-04	1950	7,049E-01	3450	8,299E-03	4950	1,102E-03
460	8,736E-01	760	3,490E-04	1060	1,422E-04	2000	7,473E-01	3500	9,000E-03	5000	1,164E-03
470	8,900E-01	770	2,050E-04	1070	1,770E-04	2050	7,775E-01	3550	1,021E-02	5050	1,274E-03
480	9,041E-01	780	1,191E-04	1080	2,193E-04	2100	8,048E-01	3600	1,156E-02	5100	1,197E-03
490	9,153E-01	790	7,178E-05	1090	2,716E-04	2150	8,284E-01	3650	1,318E-02	5150	8,650E-04