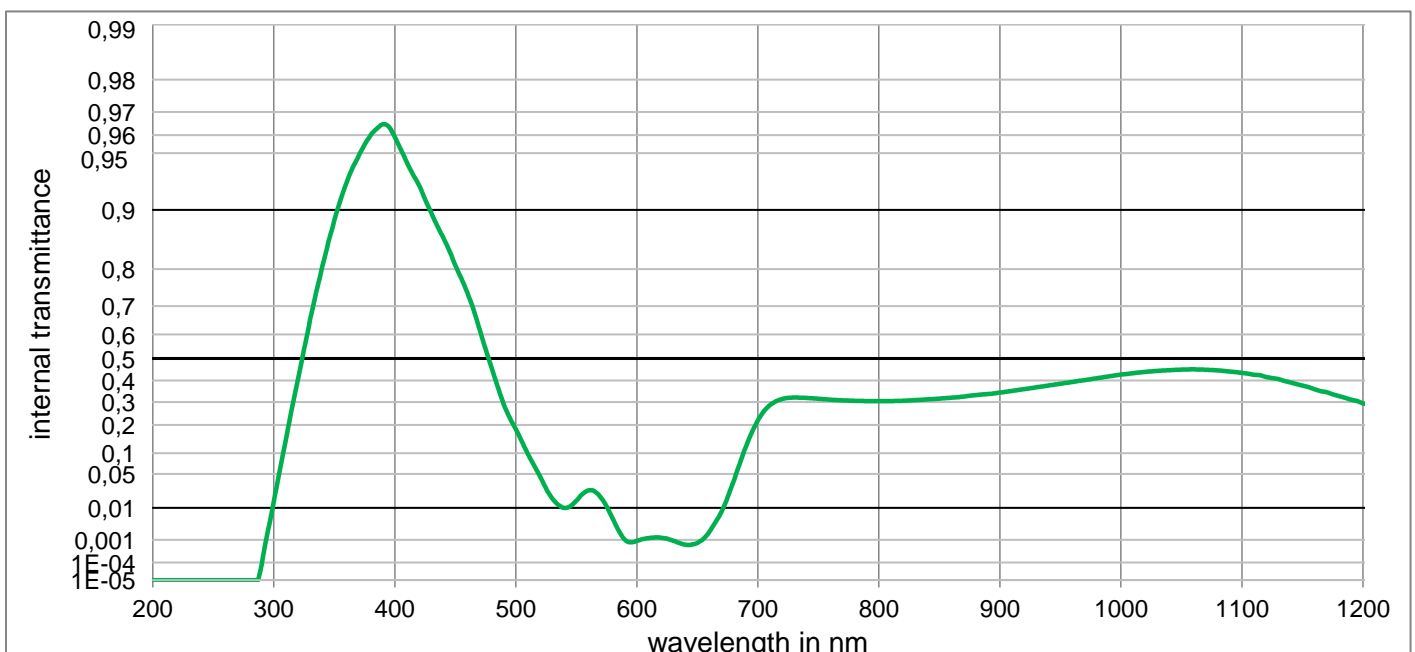


## BG25

Optical properties		Mechanical properties		Colormetric properties					
<b>Reflection factor</b>		<b>Reference thickness</b>		1 mm		2 mm		3 mm	
$P_d = 0,920$		$d = 1,00 \text{ mm}$		Illuminant D65	x	0,150	0,153	0,157	
<b>Spectral values guaranteed</b>		<b>Density</b>			y	0,055	0,027	0,021	
$\tau_i (334 \text{ nm}) \leq 0,8$	$\rho = 2,56 \text{ g/cm}^3$		Y		5,0	1,8	1,1		
$\tau_i (405 \text{ nm}) \geq 0,93$	<b>Knoop hardness</b>		$\lambda_d$		463 nm	455 nm	451 nm		
$\tau_i (488 \text{ nm}) \leq 0,39$	$HK[0.1/20] = 434$		$P_e$		0,934	0,985	0,993		
$\tau_i (725 \text{ nm}) \leq 0,36$	<b>Thermal properties</b>		Illuminant A	x	0,155	0,151	0,155		
<b>Transformation temperature</b>		$T_g = 459 \text{ }^\circ\text{C}$		y	0,093	0,035	0,024		
<b>Thermal expansion in</b>		$10^{-6}/\text{K}$		Y	2,6	0,7	0,4		
$\alpha (-30^\circ\text{C}/+70^\circ\text{C}) = 8,9$		<b>Chemical properties</b>		$\lambda_d$	470 nm	459 nm	454 nm		
$\alpha (20^\circ\text{C}/300^\circ\text{C}) = 10,2$		<b>Chemical resistance</b>		$P_e$	0,903	0,981	0,992		
<b>Refractive indices</b>		<b>Chemical resistance</b>		<b>Notes</b>					
$n_F (486 \text{ nm}) = 1,518$	<b>FR class</b> = 0		<b>UV</b>						
$n_e (546 \text{ nm}) = 1,514$	<b>SR class</b> = 1		Transmission changes are possible under the action of intense ultraviolet radiation.						
$n_d (587,6 \text{ nm}) = 1,512$	<b>AR class</b> = 1		Ionically colored glass						
<b>Sellmeier coefficients</b>		<b>Resistance against humidity</b>		Bandpass filter / Shortpass filter					
valid from 400 nm to 1550 nm		Robust glass		ISO 23364:2021					
$B_1 = 0,8738$	see pocket catalogue "Optical Filter Glass 2024", chapter 5.5		<b>Disclaimer</b>						
$B_2 = 0,3772$			All data without tolerances are to be understood to be reference values.						
$B_3 = 1,1188$									
$C_1 = 9,601\text{E-}03 \text{ } \mu\text{m}^2$									
$C_2 = 1,1147\text{E-}02 \text{ } \mu\text{m}^2$									
$C_3 = 145,493 \text{ } \mu\text{m}^2$									
<b>Internal quality</b>									
Bubble class 1									



## BG25



**Internal transmittance  $\tau_i$  at reference thickness**  
 The internal transmittance values, tabulated and graphically represented, are reference values only

$\lambda$ /nm	$\tau_i$	$\lambda$ /nm	$\tau_i$	$\lambda$ /nm	$\tau_i$	$\lambda$ /nm	$\tau_i$	$\lambda$ /nm	$\tau_i$	$\lambda$ /nm	$\tau_i$
200	< 1,000E-05	500	1,830E-01	800	3,037E-01	1100	4,350E-01	2200	7,421E-01	3700	4,262E-01
210	< 1,000E-05	510	9,700E-02	810	3,043E-01	1110	4,263E-01	2250	7,743E-01	3750	4,322E-01
220	< 1,000E-05	520	4,500E-02	820	3,060E-01	1120	4,160E-01	2300	8,000E-01	3800	4,424E-01
230	< 1,000E-05	530	1,700E-02	830	3,089E-01	1130	4,069E-01	2350	8,200E-01	3850	4,517E-01
240	< 1,000E-05	540	1,000E-02	840	3,122E-01	1140	3,915E-01	2400	8,300E-01	3900	4,636E-01
250	< 1,000E-05	550	1,500E-02	850	3,157E-01	1150	3,759E-01	2450	8,363E-01	3950	4,721E-01
260	< 1,000E-05	560	2,499E-02	860	3,200E-01	1160	3,598E-01	2500	8,400E-01	4000	4,772E-01
270	< 1,000E-05	570	1,800E-02	870	3,250E-01	1170	3,452E-01	2550	8,363E-01	4050	4,700E-01
280	< 1,000E-05	580	5,153E-03	880	3,320E-01	1180	3,280E-01	2600	8,321E-01	4100	4,500E-01
290	8,492E-05	590	1,014E-03	890	3,368E-01	1190	3,108E-01	2650	8,278E-01	4150	4,305E-01
300	1,400E-02	600	9,099E-04	900	3,438E-01	1200	2,943E-01	2700	8,100E-01	4200	4,000E-01
310	1,439E-01	610	1,170E-03	910	3,517E-01	1250	2,318E-01	2750	7,251E-01	4250	3,761E-01
320	4,080E-01	620	1,212E-03	920	3,598E-01	1300	2,200E-01	2800	6,600E-01	4300	3,400E-01
330	6,550E-01	630	9,256E-04	930	3,683E-01	1350	2,496E-01	2850	6,478E-01	4350	3,006E-01
340	8,050E-01	640	6,433E-04	940	3,764E-01	1400	2,751E-01	2900	6,470E-01	4400	2,500E-01
350	8,870E-01	650	7,603E-04	950	3,850E-01	1450	2,462E-01	2950	6,436E-01	4450	2,046E-01
360	9,280E-01	660	1,998E-03	960	3,932E-01	1500	2,300E-01	3000	6,300E-01	4500	1,500E-01
370	9,480E-01	670	7,995E-03	970	4,017E-01	1550	2,420E-01	3050	6,079E-01	4550	1,146E-01
380	9,600E-01	680	3,800E-02	980	4,106E-01	1600	2,768E-01	3100	5,900E-01	4600	7,834E-02
390	9,650E-01	690	1,180E-01	990	4,192E-01	1650	2,980E-01	3150	5,621E-01	4650	5,508E-02
400	9,590E-01	700	2,190E-01	1000	4,270E-01	1700	2,963E-01	3200	5,300E-01	4700	4,000E-02
410	9,440E-01	710	2,860E-01	1010	4,338E-01	1750	2,946E-01	3250	5,086E-01	4750	3,296E-02
420	9,260E-01	720	3,140E-01	1020	4,398E-01	1800	3,133E-01	3300	4,840E-01	4800	3,000E-02
430	8,970E-01	730	3,205E-01	1030	4,442E-01	1850	3,693E-01	3350	4,636E-01	4850	2,924E-02
440	8,610E-01	740	3,190E-01	1040	4,475E-01	1900	4,400E-01	3400	4,449E-01	4900	2,576E-02
450	8,090E-01	750	3,150E-01	1050	4,501E-01	1950	5,145E-01	3450	4,330E-01	4950	1,968E-02
460	7,400E-01	760	3,109E-01	1060	4,513E-01	2000	5,800E-01	3500	4,228E-01	5000	1,132E-02
470	6,200E-01	770	3,079E-01	1070	4,498E-01	2050	6,325E-01	3550	4,200E-01	5050	5,236E-03
480	4,570E-01	780	3,057E-01	1080	4,465E-01	2100	6,700E-01	3600	4,200E-01	5100	2,178E-03
490	2,910E-01	790	3,043E-01	1090	4,416E-01	2150	7,124E-01	3650	4,228E-01	5150	9,397E-04