

## BG3

Optical properties	
<b>Reflection factor</b>	
$P_d$	= 0,921
<b>Spectral values guaranteed</b>	
$\tau_i$ (365 nm)	≥ 0,94
$\tau_i$ (633 nm)	≤ 0,00005
<b>Refractive indices</b>	
$n_F$ (486 nm)	= 1,52
$n_e$ (546 nm)	= 1,51
$n_d$ (587,6 nm)	= 1,51
<b>Sellmeier coefficients</b>	
valid from 300 nm to 1600 nm	
$B_1$	0,8735
$B_2$	0,3716
$B_3$	1,1076
$C_1$	9,390E-03 $\mu\text{m}^2$
$C_2$	1,0998E-02 $\mu\text{m}^2$
$C_3$	145,898 $\mu\text{m}^2$
<b>Internal quality</b>	
Bubble class	1

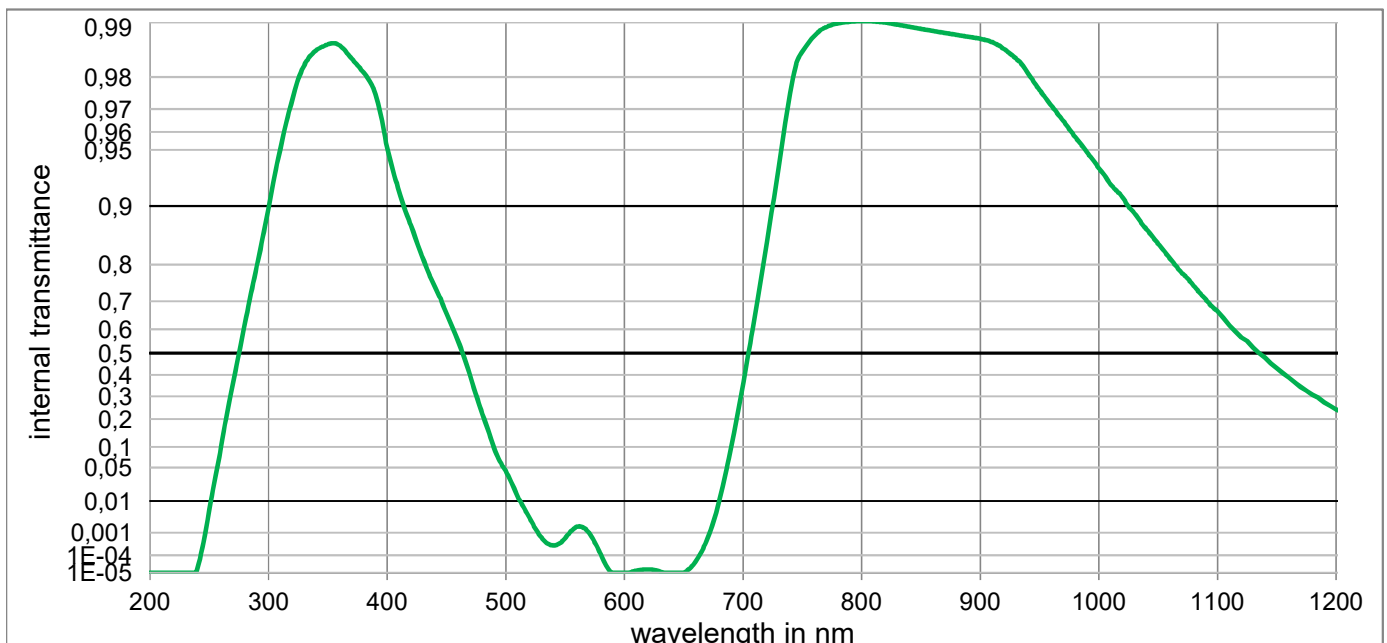
Mechanical properties	
<b>Reference thickness</b>	
$d$	= 1,00 mm
<b>Density</b>	
$\rho$	= 2,55 g/cm <sup>3</sup>
<b>Knoop hardness</b>	
HK[0.1/20]	= 438

Thermal properties	
<b>Transformation temperature</b>	
$T_g$	= 478 °C
<b>Thermal expansion in 10<sup>-6</sup>/K</b>	
$\alpha$ (-30°C/+70°C)	= 8,8
$\alpha$ (20°C/300°C)	= 10,1

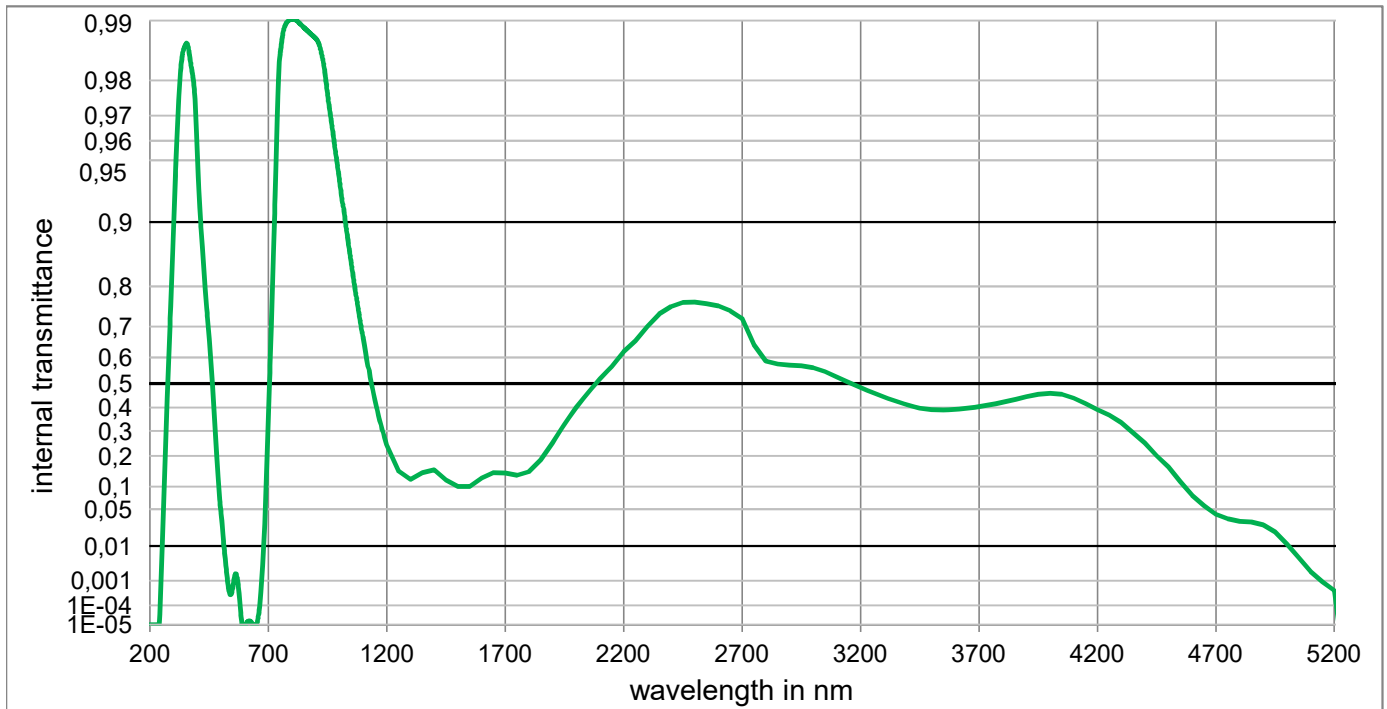
Chemical properties	
<b>Chemical resistance</b>	
FR class	= 0
SR class	= 1
AR class	= 1

Colorimetric properties				
		1 mm	2 mm	3 mm
Illuminant D65	x	0,154	0,160	0,163
	y	0,029	0,018	0,014
	Y	2,0	0,8	0,5
	$\lambda_d$	455 nm	448 nm	444 nm
	$P_e$	0,979	0,993	0,996
Illuminant A	x	0,160	0,166	0,170
	y	0,042	0,024	0,020
	Y	0,9	0,3	0,2
	$\lambda_d$	458 nm	447 nm	440 nm
	$P_e$	0,958	0,977	0,978

Notes	
<b>UV</b>	
Transmission changes are possible under the action of intense ultraviolet radiation.	
Ionically colored glass	
Bandpass filter	
DIN 58131	
Disclaimer	
All data without tolerances are to be understood to be reference values	



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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	< 1,0E-05	500	4,300E-02	800	9,902E-01	1100	6,665E-01	2200	6,200E-01	3700	4,038E-01
210	< 1,0E-05	510	1,276E-02	810	9,901E-01	1110	6,152E-01	2250	6,566E-01	3750	4,132E-01
220	< 1,0E-05	520	3,214E-03	820	9,900E-01	1120	5,680E-01	2300	7,009E-01	3800	4,226E-01
230	< 1,0E-05	530	6,442E-04	830	9,897E-01	1130	5,247E-01	2350	7,349E-01	3850	4,330E-01
240	1,9E-05	540	2,973E-04	840	9,895E-01	1140	4,800E-01	2400	7,538E-01	3900	4,462E-01
250	6,1E-03	550	6,182E-04	850	9,892E-01	1150	4,319E-01	2450	7,642E-01	3950	4,557E-01
260	1,0E-01	560	1,673E-03	860	9,889E-01	1160	3,884E-01	2500	7,651E-01	4000	4,600E-01
270	3,6E-01	570	1,000E-03	870	9,886E-01	1170	3,432E-01	2550	7,613E-01	4050	4,557E-01
280	6,3E-01	580	1,108E-04	880	9,883E-01	1180	3,081E-01	2600	7,557E-01	4100	4,400E-01
290	8,0E-01	590	< 1,000E-05	890	9,880E-01	1190	2,727E-01	2650	7,434E-01	4150	4,170E-01
300	9,0E-01	600	< 1,000E-05	900	9,877E-01	1200	2,412E-01	2700	7,236E-01	4200	3,915E-01
310	9,5E-01	610	1,340E-05	910	9,872E-01	1250	1,462E-01	2750	6,443E-01	4250	3,670E-01
320	9,734E-01	620	1,611E-05	920	9,860E-01	1300	1,200E-01	2800	5,868E-01	4300	3,368E-01
330	9,828E-01	630	1,167E-05	930	9,842E-01	1350	1,406E-01	2850	5,764E-01	4350	2,925E-01
340	9,858E-01	640	< 1,000E-05	940	9,810E-01	1400	1,500E-01	2900	5,717E-01	4400	2,500E-01
350	9,868E-01	650	< 1,000E-05	950	9,764E-01	1450	1,179E-01	2950	5,698E-01	4450	2,000E-01
360	9,866E-01	660	4,721E-05	960	9,712E-01	1500	1,000E-01	3000	5,623E-01	4500	1,600E-01
370	9,842E-01	670	5,929E-04	970	9,651E-01	1550	1,000E-01	3050	5,481E-01	4550	1,132E-01
380	9,812E-01	680	1,040E-02	980	9,574E-01	1600	1,236E-01	3100	5,264E-01	4600	7,780E-02
390	9,752E-01	690	1,004E-01	990	9,484E-01	1650	1,406E-01	3150	5,066E-01	4650	5,610E-02
400	9,510E-01	700	3,590E-01	1000	9,369E-01	1700	1,400E-01	3200	4,840E-01	4700	4,159E-02
410	9,160E-01	710	6,550E-01	1010	9,230E-01	1750	1,330E-01	3250	4,632E-01	4750	3,483E-02
420	8,740E-01	720	8,460E-01	1020	9,099E-01	1800	1,443E-01	3300	4,443E-01	4800	3,170E-02
430	8,150E-01	730	9,380E-01	1030	8,909E-01	1850	1,849E-01	3350	4,274E-01	4850	3,076E-02
440	7,450E-01	740	9,760E-01	1040	8,680E-01	1900	2,500E-01	3400	4,100E-01	4900	2,729E-02
450	6,580E-01	750	9,856E-01	1050	8,428E-01	1950	3,283E-01	3450	3,981E-01	4950	2,004E-02
460	5,500E-01	760	9,881E-01	1060	8,133E-01	2000	4,000E-01	3500	3,915E-01	5000	1,099E-02
470	3,930E-01	770	9,894E-01	1070	7,800E-01	2050	4,623E-01	3550	3,896E-01	5050	5,082E-03
480	2,220E-01	780	9,899E-01	1080	7,463E-01	2100	5,200E-01	3600	3,915E-01	5100	2,032E-03
490	9,700E-02	790	9,901E-01	1090	7,060E-01	2150	5,670E-01	3650	3,981E-01	5150	9,099E-04