

NG3

Optical properties	
Reflection factor	
P_d	= 0,921
Spectral values guaranteed	
τ_i (405 nm)	= 0,06 ± 0,02
τ_i (546 nm)	= 0,1 ± 0,02
τ_i (694 nm)	= 0,17 ± 0,03
Refractive indices	
n_F (486 nm)	= 1,514
n_e (546 nm)	= 1,509
n_d (587,6 nm)	= 1,507
Sellmeier coefficients	
valid from 440 nm to 1550 nm	
B_1	0,8995
B_2	0,3364
B_3	32,4433
C_1	9,703E-03 μm^2
C_2	1,2385E-02 μm^2
C_3	4153,754 μm^2
Internal quality	
Bubble class	2

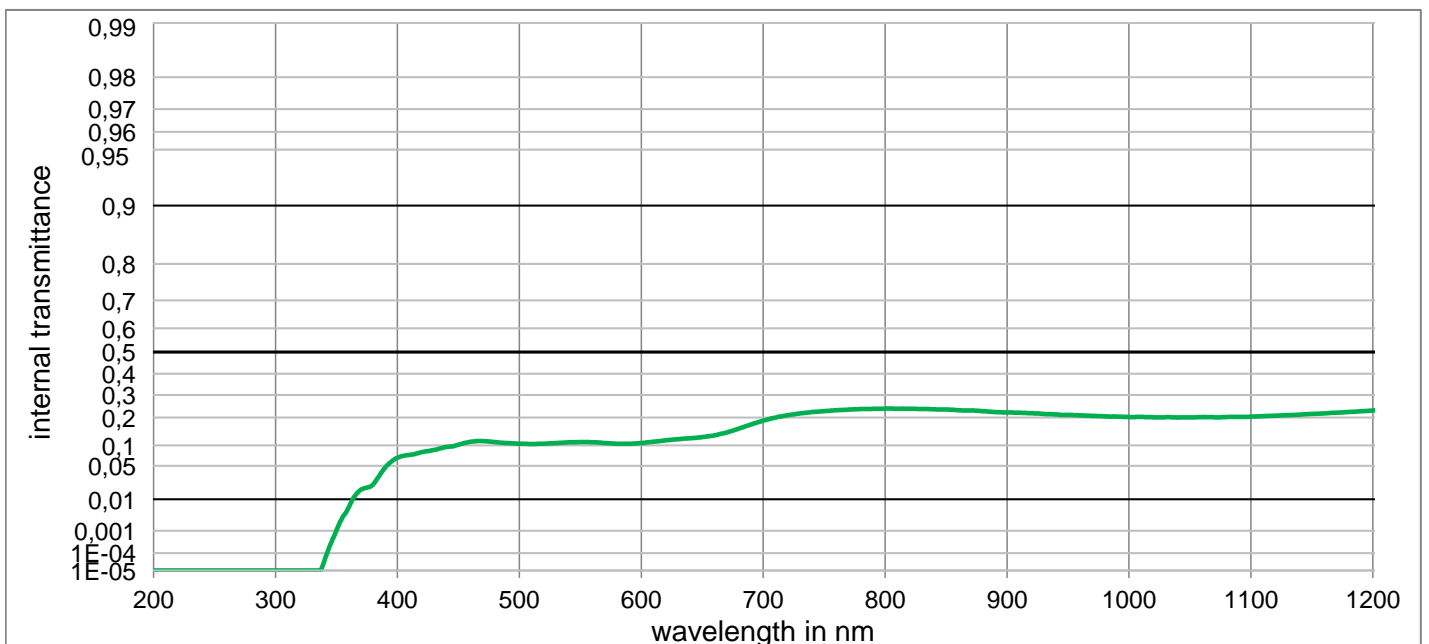
Mechanical properties	
Reference thickness	
d	= 1,00 mm
Density	
ρ	= 2,44 g/cm ³
Knoop hardness	
HK[0.1/20]	= 443

Thermal properties	
Transformation temperature	
T_g	= 462 °C
Thermal expansion in 10⁻⁶/K	
α (-30°C/+70°C)	= 6,5
α (20°C/300°C)	= 7,3

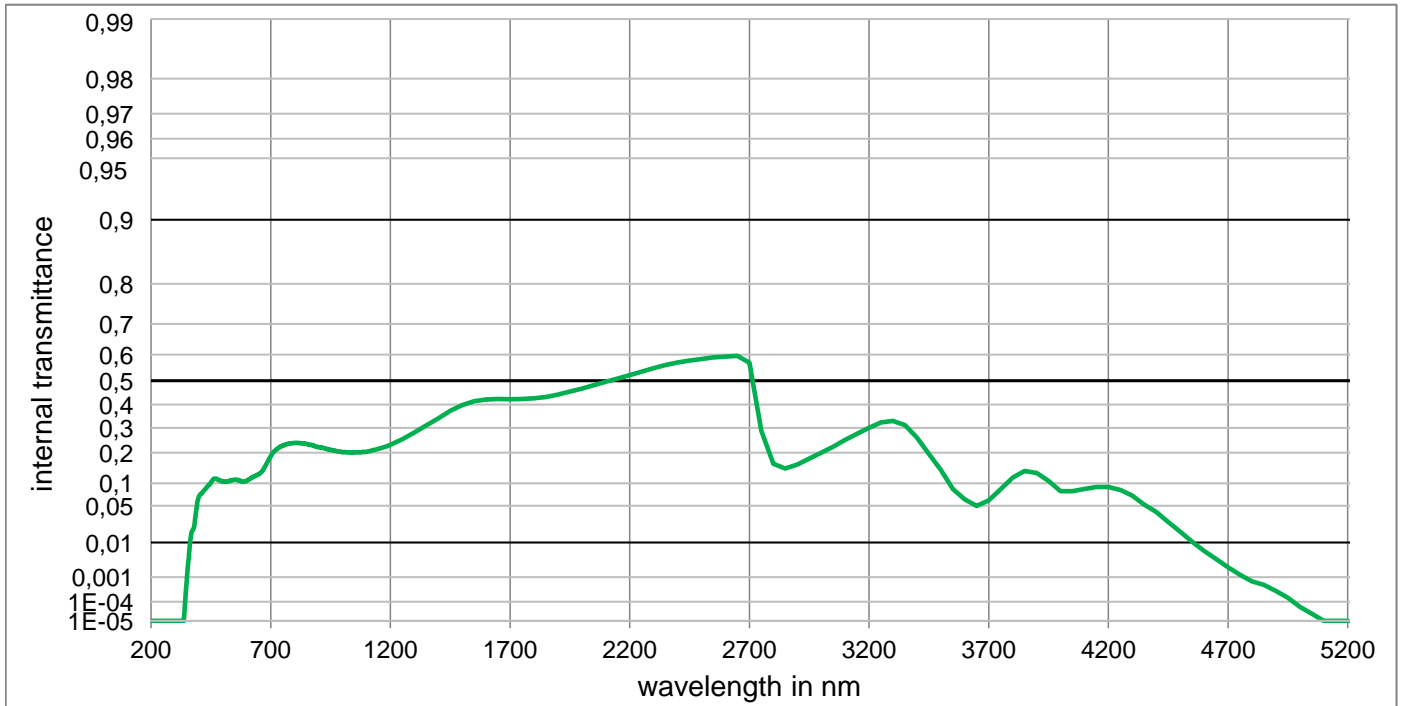
Chemical properties	
Chemical resistance	
FR class	= 1
SR class	= 2.2
AR class	= 1
Resistance against humidity	
Resistant glass	
see pocket catalogue "Optical Filter Glass 2020", chapter 5.5	

Colormetric properties				
		1 mm	2 mm	3 mm
Illuminant D65	x			
	y			
	Y			
	λ_d			
	P_e			
Illuminant A	x			
	y			
	Y			
	λ_d			
	P_e			

Notes	
Ionically colored glass	
Neutral density filter	
DIN 58131	
Disclaimer	
All data without tolerances are to be understood to be reference values.	



NG3



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	1,050E-01	800	2,380E-01	1100	2,034E-01	2200	5,225E-01	3700	6,000E-02
210	< 1,0E-05	510	1,043E-01	810	2,375E-01	1110	2,054E-01	2250	5,360E-01	3750	8,480E-02
220	< 1,0E-05	520	1,050E-01	820	2,370E-01	1120	2,077E-01	2300	5,500E-01	3800	1,156E-01
230	< 1,0E-05	530	1,070E-01	830	2,360E-01	1130	2,100E-01	2350	5,617E-01	3850	1,363E-01
240	< 1,0E-05	540	1,090E-01	840	2,350E-01	1140	2,124E-01	2400	5,711E-01	3900	1,300E-01
250	< 1,0E-05	550	1,100E-01	850	2,340E-01	1150	2,149E-01	2450	5,786E-01	3950	1,068E-01
260	< 1,0E-05	560	1,095E-01	860	2,310E-01	1160	2,175E-01	2500	5,837E-01	4000	8,000E-02
270	< 1,0E-05	570	1,071E-01	870	2,300E-01	1170	2,202E-01	2550	5,900E-01	4050	8,000E-02
280	< 1,0E-05	580	1,050E-01	880	2,270E-01	1180	2,232E-01	2600	5,925E-01	4100	8,511E-02
290	< 1,0E-05	590	1,049E-01	890	2,230E-01	1190	2,263E-01	2650	5,956E-01	4150	9,016E-02
300	< 1,0E-05	600	1,070E-01	900	2,210E-01	1200	2,300E-01	2700	5,700E-01	4200	9,000E-02
310	< 1,0E-05	610	1,110E-01	910	2,200E-01	1250	2,532E-01	2750	2,880E-01	4250	8,318E-02
320	< 1,000E-05	620	1,157E-01	920	2,180E-01	1300	2,800E-01	2800	1,600E-01	4300	7,000E-02
330	< 1,000E-05	630	1,192E-01	930	2,150E-01	1350	3,110E-01	2850	1,439E-01	4350	5,176E-02
340	3,855E-05	640	1,222E-01	940	2,130E-01	1400	3,400E-01	2900	1,574E-01	4400	4,000E-02
350	1,040E-03	650	1,260E-01	950	2,110E-01	1450	3,732E-01	2950	1,784E-01	4450	2,679E-02
360	5,900E-03	660	1,319E-01	960	2,090E-01	1500	3,970E-01	3000	2,000E-01	4500	1,726E-02
370	1,704E-02	670	1,420E-01	970	2,070E-01	1550	4,147E-01	3050	2,224E-01	4550	1,050E-02
380	2,199E-02	680	1,560E-01	980	2,050E-01	1600	4,216E-01	3100	2,500E-01	4600	6,237E-03
390	4,696E-02	690	1,720E-01	990	2,040E-01	1650	4,241E-01	3150	2,752E-01	4650	3,750E-03
400	6,691E-02	700	1,871E-01	1000	2,020E-01	1700	4,230E-01	3200	3,000E-01	4700	2,128E-03
410	7,402E-02	710	2,000E-01	1010	2,022E-01	1750	4,241E-01	3250	3,236E-01	4750	1,222E-03
420	8,105E-02	720	2,094E-01	1020	2,010E-01	1800	4,273E-01	3300	3,300E-01	4800	7,096E-04
430	8,703E-02	730	2,170E-01	1030	2,012E-01	1850	4,325E-01	3350	3,116E-01	4850	5,200E-04
440	9,500E-02	740	2,230E-01	1040	2,000E-01	1900	4,425E-01	3400	2,600E-01	4900	2,985E-04
450	1,019E-01	750	2,270E-01	1050	2,010E-01	1950	4,546E-01	3450	1,948E-01	4950	1,528E-04
460	1,110E-01	760	2,310E-01	1060	2,020E-01	2000	4,674E-01	3500	1,400E-01	5000	5,649E-05
470	1,130E-01	770	2,340E-01	1070	2,010E-01	2050	4,813E-01	3550	8,540E-02	5050	2,518E-05
480	1,100E-01	780	2,360E-01	1080	2,020E-01	2100	4,957E-01	3600	6,220E-02	5100	< 1,000E-05
490	1,070E-01	790	2,370E-01	1090	2,029E-01	2150	5,090E-01	3650	4,960E-02	5150	< 1,000E-05