

GG435

Optical properties	
Reflection factor	
$P_d = 0,918$	
Spectral values guaranteed (d = 3 mm)	
$\lambda_{i0,5} = 435 \text{ nm} \pm 6 \text{ nm}$	
$\lambda_s (\tau_{i,U} = 1E-05) = 370 \text{ nm}$	
$\lambda_p (\tau_{i,L} = 0,92) = 520 \text{ nm}$	
Refractive indices	
$n_d (587,6 \text{ nm})$	= 1,52
$n_s (852 \text{ nm})$	= 1,52
$n_t (1014 \text{ nm})$	= 1,51
Sellmeier coefficients	
on request	
Internal quality	
Bubble class	3

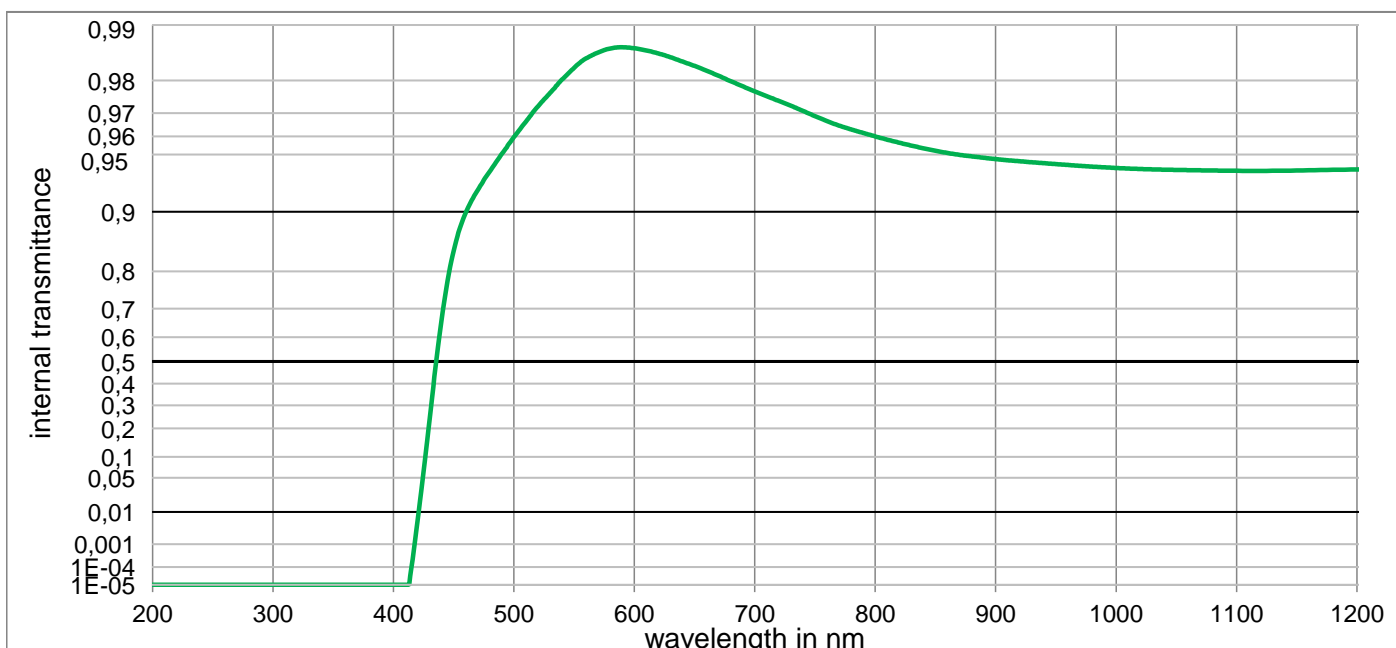
Mechanical properties	
Reference thickness	
$d = 3,00 \text{ mm}$	
Density	
$\rho = 2,55 \text{ g/cm}^3$	
Knoop hardness	
$HK_{[0,1/20]} = 449$	

Thermal properties	
Transformation temperature	
$T_g = 537 \text{ }^\circ\text{C}$	
Thermal expansion in $10^{-6}/\text{K}$	
$\alpha_{(-30^\circ\text{C}/+70^\circ\text{C})}$	= 7,8
$\alpha_{(20^\circ\text{C}/300^\circ\text{C})}$	= 9,1
Temperature coefficient	
Tk	= 0,08 nm/K

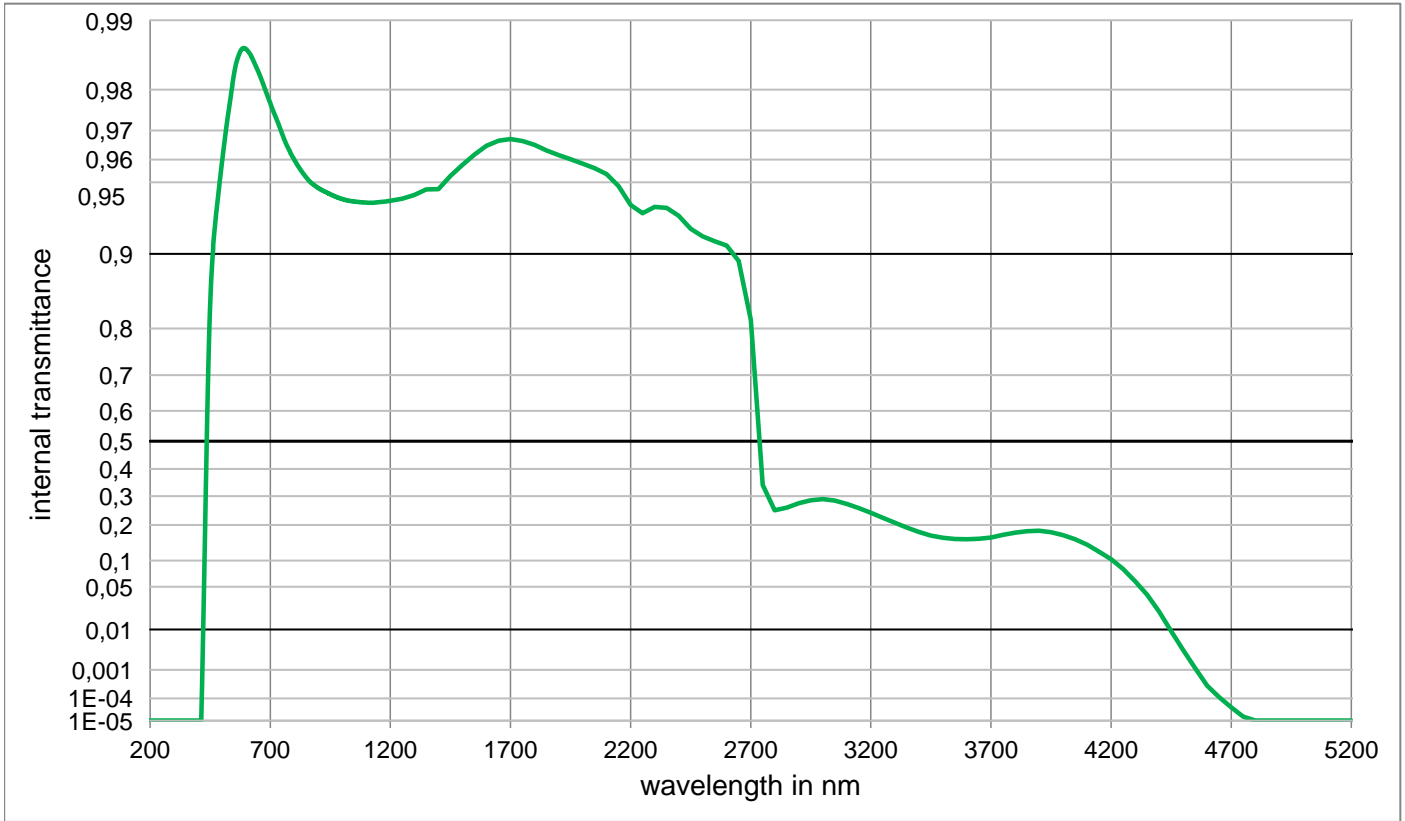
Chemical properties	
Chemical resistance	
FR class	= 0
SR class	= 1
AR class	= 1
Resistance against humidity	
Robust glass	
see pocket catalogue "Optical Filter Glass 2024", chapter 5.5	

		1 mm	2 mm	3 mm
Illuminant D65	x	0,323	0,328	0,333
	y	0,350	0,361	0,369
	Y	90,9	90,2	89,5
	λ_d	568 nm	568 nm	568 nm
	P_e	0,086	0,132	0,166
Illuminant A	x	0,453	0,457	0,459
	y	0,415	0,419	0,422
	Y	91,1	90,5	90,0
	λ_d	580 nm	580 nm	580 nm
	P_e	0,092	0,143	0,182

Notes	
Stricking glass	
Longpass filter	
ISO 23364:2021	
Disclaimer	
All data without tolerances are to be understood to be reference values.	



GG435



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	9,596E-01	800	9,600E-01	1100	9,390E-01	2200	9,376E-01	3700	1,608E-01
210	< 1,0E-05	510	9,667E-01	810	9,583E-01	1110	9,390E-01	2250	9,324E-01	3750	1,688E-01
220	< 1,0E-05	520	9,724E-01	820	9,568E-01	1120	9,389E-01	2300	9,365E-01	3800	1,759E-01
230	< 1,0E-05	530	9,767E-01	830	9,552E-01	1130	9,390E-01	2350	9,358E-01	3850	1,802E-01
240	< 1,0E-05	540	9,802E-01	840	9,537E-01	1140	9,391E-01	2400	9,307E-01	3900	1,817E-01
250	< 1,0E-05	550	9,829E-01	850	9,523E-01	1150	9,392E-01	2450	9,214E-01	3950	1,770E-01
260	< 1,0E-05	560	9,848E-01	860	9,510E-01	1160	9,394E-01	2500	9,154E-01	4000	1,683E-01
270	< 1,0E-05	570	9,859E-01	870	9,498E-01	1170	9,395E-01	2550	9,115E-01	4050	1,561E-01
280	< 1,0E-05	580	9,866E-01	880	9,489E-01	1180	9,397E-01	2600	9,076E-01	4100	1,404E-01
290	< 1,0E-05	590	9,868E-01	890	9,480E-01	1190	9,399E-01	2650	8,930E-01	4150	1,219E-01
300	< 1,0E-05	600	9,866E-01	900	9,471E-01	1200	9,401E-01	2700	8,152E-01	4200	1,034E-01
310	< 1,0E-05	610	9,862E-01	910	9,464E-01	1250	9,413E-01	2750	3,405E-01	4250	8,162E-02
320	< 1,000E-05	620	9,857E-01	920	9,457E-01	1300	9,434E-01	2800	2,494E-01	4300	5,873E-02
330	< 1,000E-05	630	9,850E-01	930	9,451E-01	1350	9,464E-01	2850	2,584E-01	4350	3,903E-02
340	< 1,000E-05	640	9,842E-01	940	9,444E-01	1400	9,466E-01	2900	2,745E-01	4400	2,142E-02
350	< 1,000E-05	650	9,833E-01	950	9,438E-01	1450	9,530E-01	2950	2,847E-01	4450	9,220E-03
360	< 1,000E-05	660	9,823E-01	960	9,432E-01	1500	9,579E-01	3000	2,890E-01	4500	3,490E-03
370	< 1,000E-05	670	9,811E-01	970	9,426E-01	1550	9,619E-01	3050	2,838E-01	4550	1,129E-03
380	< 1,000E-05	680	9,799E-01	980	9,420E-01	1600	9,651E-01	3100	2,715E-01	4600	3,010E-04
390	< 1,000E-05	690	9,785E-01	990	9,415E-01	1650	9,668E-01	3150	2,572E-01	4650	1,117E-04
400	< 1,000E-05	700	9,771E-01	1000	9,411E-01	1700	9,673E-01	3200	2,407E-01	4700	4,207E-05
410	< 1,000E-05	710	9,757E-01	1010	9,407E-01	1750	9,668E-01	3250	2,237E-01	4750	1,556E-05
420	5,714E-03	720	9,742E-01	1020	9,403E-01	1800	9,654E-01	3300	2,073E-01	4800	< 1,000E-05
430	2,404E-01	730	9,726E-01	1030	9,401E-01	1850	9,634E-01	3350	1,920E-01	4850	< 1,000E-05
440	6,640E-01	740	9,708E-01	1040	9,398E-01	1900	9,618E-01	3400	1,782E-01	4900	< 1,000E-05
450	8,424E-01	750	9,689E-01	1050	9,397E-01	1950	9,602E-01	3450	1,665E-01	4950	< 1,000E-05
460	8,986E-01	760	9,669E-01	1060	9,395E-01	2000	9,584E-01	3500	1,606E-01	5000	< 1,000E-05
470	9,230E-01	770	9,650E-01	1070	9,394E-01	2050	9,564E-01	3550	1,567E-01	5050	< 1,000E-05
480	9,386E-01	780	9,633E-01	1080	9,392E-01	2100	9,539E-01	3600	1,559E-01	5100	< 1,000E-05
490	9,506E-01	790	9,616E-01	1090	9,391E-01	2150	9,482E-01	3650	1,573E-01	5150	< 1,000E-05