

GG475

Optical properties	
Reflection factor	
P_d	= 0,918
Spectral values guaranteed (d = 3 mm)	
λ_c ($\tau_i = 0,5$)	= 475 nm \pm 6 nm
λ_s ($\tau_{i,U} = 1E-05$)	= 410 nm
λ_p ($\tau_{i,L} = 0,92$)	= 550 nm
Refractive indices	
n_d (587,6 nm)	= 1,52
n_s (852 nm)	= 1,52
n_t (1014 nm)	= 1,51
Sellmeier coefficients	
on request	
Internal quality	
Bubble class	3

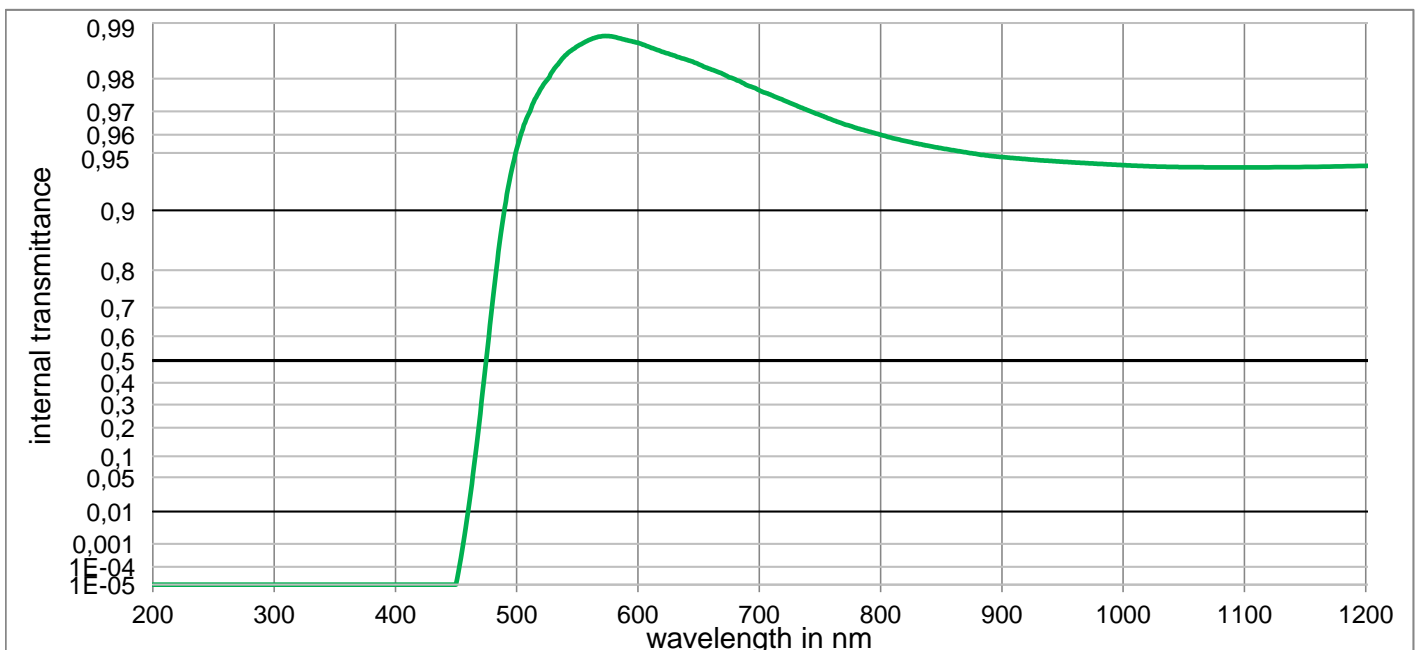
Mechanical properties	
Reference thickness	
d	= 3,00 mm
Density	
ρ	= 2,56 g/cm ³
Knoop hardness	
HK _[0.1/20]	= 451

Thermal properties	
Transformation temperature	
Tg	= 531 °C
Thermal expansion in 10⁻⁶/K	
α (-30°C/+70°C)	= 8,2
α (20°C/300°C)	= 9,4
Temperature coefficient	
Tk	= 0,09 nm/K

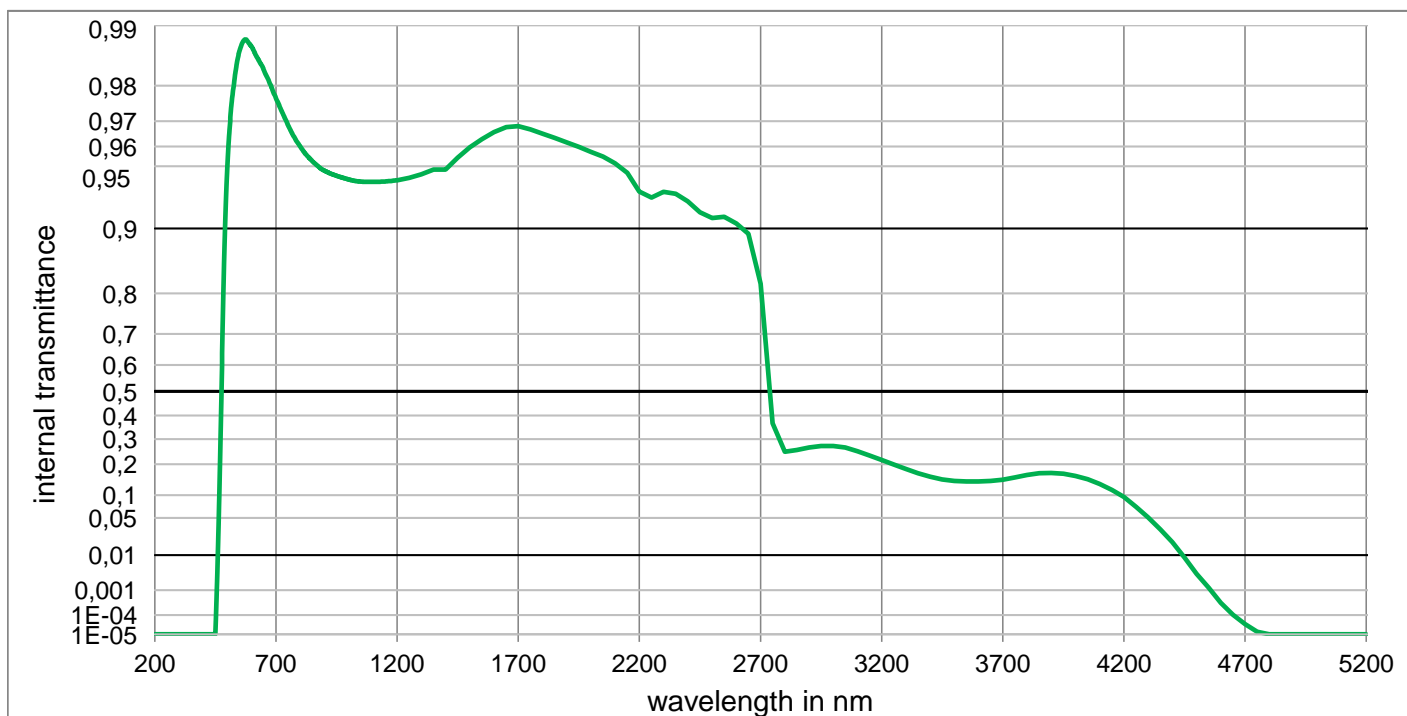
Chemical properties	
Chemical resistance	
FR class	= 0
SR class	= 1
AR class	= 1
Resistance against humidity	
Resistant glass	
see pocket catalogue "Optical Filter Glass 2020", chapter 5.5	

Colormetric properties				
		1 mm	2 mm	3 mm
Illuminant D65	x	0,381	0,394	0,401
	y	0,463	0,485	0,494
	Y	89,5	88,5	87,7
	λ_d	568 nm	569 nm	569 nm
	P _e	0,567	0,664	0,709
Illuminant A	x	0,483	0,489	0,492
	y	0,453	0,460	0,463
	Y	90,7	90,0	89,4
	λ_d	580 nm	580 nm	580 nm
	P _e	0,560	0,648	0,689

Notes	
Stricking glass	
Longpass 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	9,523E-01	800	9,600E-01	1100	9,404E-01	2200	9,336E-01	3700	1,458E-01
210	< 1,0E-05	510	9,691E-01	810	9,583E-01	1110	9,404E-01	2250	9,290E-01	3750	1,530E-01
220	< 1,0E-05	520	9,773E-01	820	9,568E-01	1120	9,404E-01	2300	9,335E-01	3800	1,617E-01
230	< 1,0E-05	530	9,819E-01	830	9,554E-01	1130	9,405E-01	2350	9,320E-01	3850	1,674E-01
240	< 1,0E-05	540	9,850E-01	840	9,541E-01	1140	9,406E-01	2400	9,259E-01	3900	1,685E-01
250	< 1,0E-05	550	9,866E-01	850	9,529E-01	1150	9,407E-01	2450	9,164E-01	3950	1,656E-01
260	< 1,0E-05	560	9,877E-01	860	9,516E-01	1160	9,408E-01	2500	9,109E-01	4000	1,582E-01
270	< 1,0E-05	570	9,882E-01	870	9,504E-01	1170	9,409E-01	2550	9,120E-01	4050	1,473E-01
280	< 1,0E-05	580	9,881E-01	880	9,492E-01	1180	9,411E-01	2600	9,054E-01	4100	1,326E-01
290	< 1,0E-05	590	9,876E-01	890	9,482E-01	1190	9,413E-01	2650	8,939E-01	4150	1,147E-01
300	< 1,0E-05	600	9,872E-01	900	9,474E-01	1200	9,415E-01	2700	8,190E-01	4200	9,520E-02
310	< 1,0E-05	610	9,864E-01	910	9,468E-01	1250	9,430E-01	2750	3,672E-01	4250	7,140E-02
320	< 1,000E-05	620	9,857E-01	920	9,461E-01	1300	9,453E-01	2800	2,487E-01	4300	5,080E-02
330	< 1,000E-05	630	9,850E-01	930	9,454E-01	1350	9,481E-01	2850	2,550E-01	4350	3,277E-02
340	< 1,000E-05	640	9,842E-01	940	9,449E-01	1400	9,481E-01	2900	2,658E-01	4400	1,894E-02
350	< 1,000E-05	650	9,833E-01	950	9,443E-01	1450	9,546E-01	2950	2,713E-01	4450	8,760E-03
360	< 1,000E-05	660	9,822E-01	960	9,438E-01	1500	9,596E-01	3000	2,719E-01	4500	3,295E-03
370	< 1,000E-05	670	9,811E-01	970	9,434E-01	1550	9,633E-01	3050	2,657E-01	4550	1,200E-03
380	< 1,000E-05	680	9,799E-01	980	9,429E-01	1600	9,660E-01	3100	2,506E-01	4600	3,357E-04
390	< 1,000E-05	690	9,783E-01	990	9,424E-01	1650	9,679E-01	3150	2,333E-01	4650	1,035E-04
400	< 1,000E-05	700	9,769E-01	1000	9,420E-01	1700	9,683E-01	3200	2,158E-01	4700	3,656E-05
410	< 1,000E-05	710	9,754E-01	1010	9,416E-01	1750	9,671E-01	3250	1,989E-01	4750	1,393E-05
420	< 1,000E-05	720	9,739E-01	1020	9,412E-01	1800	9,655E-01	3300	1,827E-01	4800	< 1,000E-05
430	< 1,000E-05	730	9,722E-01	1030	9,409E-01	1850	9,638E-01	3350	1,680E-01	4850	< 1,000E-05
440	< 1,000E-05	740	9,704E-01	1040	9,407E-01	1900	9,618E-01	3400	1,558E-01	4900	< 1,000E-05
450	< 1,000E-05	750	9,686E-01	1050	9,406E-01	1950	9,598E-01	3450	1,467E-01	4950	< 1,000E-05
460	1,043E-02	760	9,667E-01	1060	9,405E-01	2000	9,575E-01	3500	1,419E-01	5000	< 1,000E-05
470	2,606E-01	770	9,649E-01	1070	9,404E-01	2050	9,551E-01	3550	1,402E-01	5050	< 1,000E-05
480	7,129E-01	780	9,632E-01	1080	9,404E-01	2100	9,516E-01	3600	1,403E-01	5100	< 1,000E-05
490	9,022E-01	790	9,616E-01	1090	9,404E-01	2150	9,462E-01	3650	1,418E-01	5150	< 1,000E-05