Data Sheet

RG780

Optical properties	
Reflection factor	
P_d	= 0,908
Spectral values guaranteed (d = 3 mm)	
λ_c (τ_i = 0,5)	= 780 nm ± 9 nm
λ_s ($\tau_{i,U}$ = 1E-05)	= 610 nm
λ_p ($\tau_{i,L}$ = 0,97)	= 900 nm
Refractive indices	
n_d (587,6 nm)	= 1,56
n_s (852 nm)	= 1,55
n_t (1014 nm)	= 1,55
Sellmeier coefficients	
valid from 440 nm to 1550 nm	
B_1 =	0,4066
B_2 =	0,9852
B_3 =	0,3548
C_1 =	1,139E-02 µm²
C_2 =	1,2050E-02 µm²
C_3 =	55,081 µm²
Internal quality	
Bubble class	3

Mechanical properties	
Reference thickness	
d	= 3,00 mm
Density	
ρ	= 2,94 g/cm³
Knoop hardness	
$HK_{[0.1/20]}$	

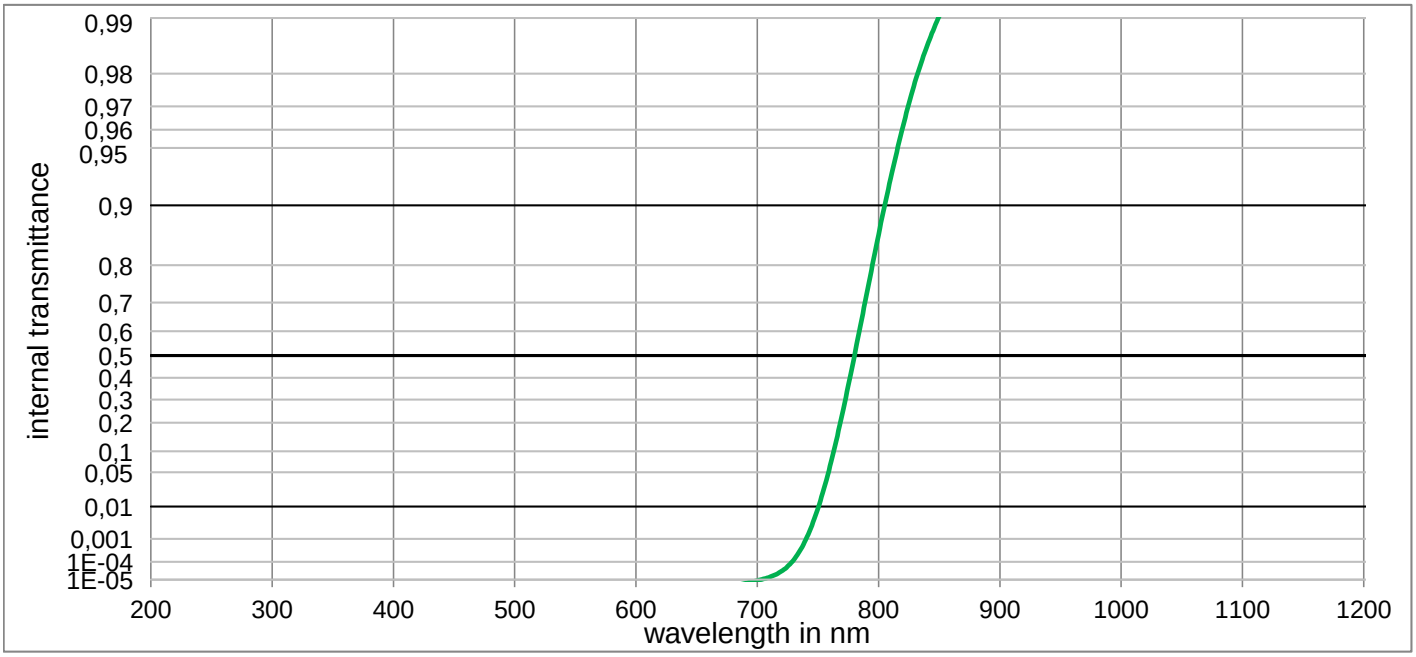
Thermal properties		
Transformation temperature		
Tg	= 552 °C	
Thermal expansion in		**10^{-6}/K**
$\alpha_{(-30°C/+70°C)}$	= 9,5	
$\alpha_{(20°C/300°C)}$	= 10,5	
Temperature coefficient		
Tk	= 0,22	nm/K

Chemical properties	
Chemical resistance	
FR class	= 5
SR class	= 53.4
AR class	= 1.3
Resistance against humidity	
Robust 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
Stricking glass
Longpass filter
DIN 58131

Disclaimer
All data without tolerances are to be understood to be reference values.



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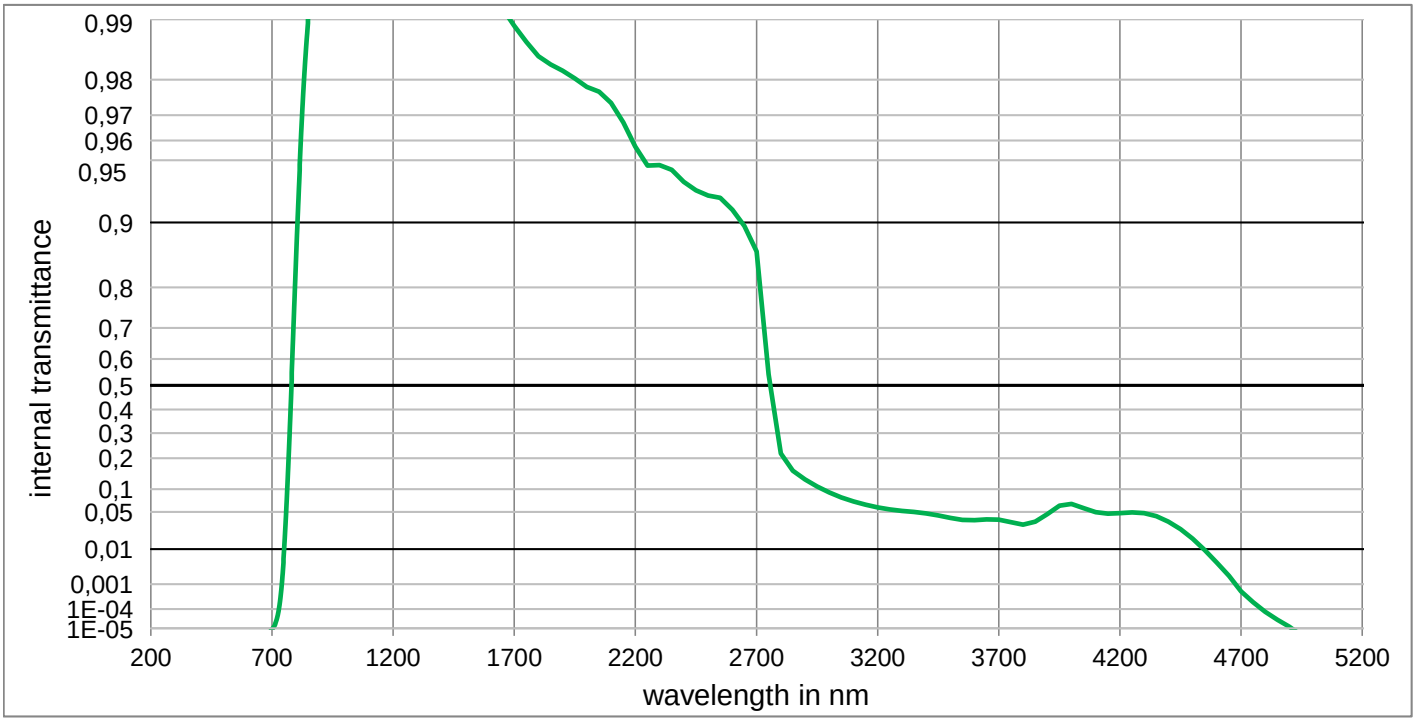

Internal transmittance ti at reference thickness
The internal transmittance values, tabulated and graphically represented, are reference values only

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	< 1,000E-05	800	8,585E-01	1100	9,944E-01	2200	9,571E-01	3700	3,777E-02
210	< 1,0E-05	510	< 1,000E-05	810	9,277E-01	1110	9,944E-01	2250	9,468E-01	3750	3,428E-02
220	< 1,0E-05	520	< 1,000E-05	820	9,614E-01	1120	9,944E-01	2300	9,472E-01	3800	3,105E-02
230	< 1,0E-05	530	< 1,000E-05	830	9,778E-01	1130	9,945E-01	2350	9,443E-01	3850	3,484E-02
240	< 1,0E-05	540	< 1,000E-05	840	9,858E-01	1140	9,945E-01	2400	9,363E-01	3900	4,632E-02
250	< 1,0E-05	550	< 1,000E-05	850	9,902E-01	1150	9,945E-01	2450	9,300E-01	3950	6,186E-02
260	< 1,0E-05	560	< 1,000E-05	860	9,910E-01	1160	9,945E-01	2500	9,257E-01	4000	6,493E-02
270	< 1,0E-05	570	< 1,000E-05	870	9,919E-01	1170	9,945E-01	2550	9,238E-01	4050	5,684E-02
280	< 1,0E-05	580	< 1,000E-05	880	9,924E-01	1180	9,946E-01	2600	9,131E-01	4100	4,949E-02
290	< 1,0E-05	590	< 1,000E-05	890	9,927E-01	1190	9,946E-01	2650	8,962E-01	4150	4,707E-02
300	< 1,0E-05	600	< 1,000E-05	900	9,929E-01	1200	9,947E-01	2700	8,629E-01	4200	4,802E-02
310	< 1,0E-05	610	< 1,000E-05	910	9,930E-01	1250	9,948E-01	2750	5,436E-01	4250	4,921E-02
320	< 1,000E-05	620	< 1,000E-05	920	9,931E-01	1300	9,950E-01	2800	2,180E-01	4300	4,794E-02
330	< 1,000E-05	630	< 1,000E-05	930	9,931E-01	1350	9,951E-01	2850	1,559E-01	4350	4,304E-02
340	< 1,000E-05	640	< 1,000E-05	940	9,931E-01	1400	9,930E-01	2900	1,279E-01	4400	3,517E-02
350	< 1,000E-05	650	< 1,000E-05	950	9,930E-01	1450	9,933E-01	2950	1,071E-01	4450	2,583E-02
360	< 1,000E-05	660	< 1,000E-05	960	9,930E-01	1500	9,942E-01	3000	9,129E-02	4500	1,685E-02
370	< 1,000E-05	670	< 1,000E-05	970	9,933E-01	1550	9,938E-01	3050	7,961E-02	4550	9,430E-03
380	< 1,000E-05	680	< 1,000E-05	980	9,937E-01	1600	9,927E-01	3100	7,064E-02	4600	4,586E-03
390	< 1,000E-05	690	< 1,000E-05	990	9,939E-01	1650	9,912E-01	3150	6,354E-02	4650	1,887E-03
400	< 1,000E-05	700	< 1,000E-05	1000	9,940E-01	1700	9,892E-01	3200	5,827E-02	4700	5,470E-04
410	< 1,000E-05	710	1,422E-05	1010	9,941E-01	1750	9,870E-01	3250	5,439E-02	4750	1,991E-04
420	< 1,000E-05	720	3,155E-05	1020	9,942E-01	1800	9,847E-01	3300	5,195E-02	4800	7,430E-05
430	< 1,000E-05	730	1,255E-04	1030	9,942E-01	1850	9,832E-01	3350	5,008E-02	4850	2,958E-05
440	< 1,000E-05	740	9,334E-04	1040	9,942E-01	1900	9,820E-01	3400	4,755E-02	4900	1,222E-05
450	< 1,000E-05	750	8,941E-03	1050	9,943E-01	1950	9,803E-01	3450	4,414E-02	4950	< 1,000E-05
460	< 1,000E-05	760	6,268E-02	1060	9,943E-01	2000	9,783E-01	3500	4,020E-02	5000	< 1,000E-05
470	< 1,000E-05	770	2,345E-01	1070	9,943E-01	2050	9,771E-01	3550	3,737E-02	5050	< 1,000E-05
480	< 1,000E-05	780	4,959E-01	1080	9,943E-01	2100	9,739E-01	3600	3,722E-02	5100	< 1,000E-05
490	< 1,000E-05	790	7,222E-01	1090	9,944E-01	2150	9,675E-01	3650	3,809E-02	5150	< 1,000E-05