

## RG695

Optical properties	
<b>Reflection factor</b>	
$P_d = 0,915$	
<b>Spectral values guaranteed (d = 3 mm)</b>	
$\lambda_c (\tau_i = 0,5)$	= 695 nm $\pm$ 6 nm
$\lambda_s (\tau_{i,U} = 1E-05)$	= 610 nm
$\lambda_p (\tau_{i,L} = 0,96)$	= 780 nm
<b>Refractive indices</b>	
$n_d (587,6 \text{ nm})$	= 1,53
$n_s (852 \text{ nm})$	= 1,53
$n_t (1014 \text{ nm})$	= 1,52
<b>Sellmeier coefficients</b>	
valid from 440 nm to 1550 nm	
$B_1$	= 0,6009
$B_2$	= 0,7114
$B_3$	= 25,2603
$C_1$	= 1,682E-02 $\mu\text{m}^2$
$C_2$	= 4,0132E-03 $\mu\text{m}^2$
$C_3$	= 4853,501 $\mu\text{m}^2$
<b>Internal quality</b>	
Bubble class	3

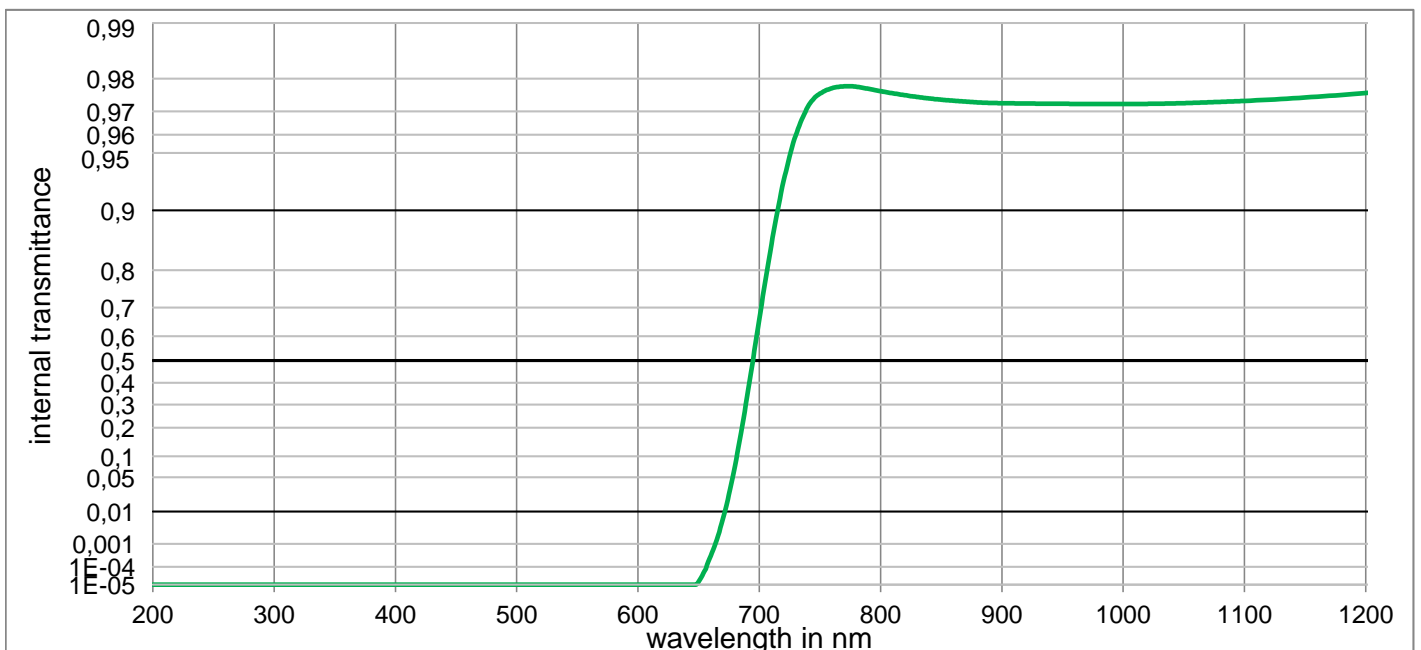
Mechanical properties	
<b>Reference thickness</b>	
$d = 3,00 \text{ mm}$	
<b>Density</b>	
$\rho = 2,76 \text{ g/cm}^3$	
<b>Knoop hardness</b>	
$HK_{[0.1/20]} = 459$	

Thermal properties	
<b>Transformation temperature</b>	
$T_g = 532 \text{ }^\circ\text{C}$	
<b>Thermal expansion in <math>10^{-6}/\text{K}</math></b>	
$\alpha (-30^\circ\text{C}/+70^\circ\text{C})$	= 8,1
$\alpha (20^\circ\text{C}/300^\circ\text{C})$	= 9,4
<b>Temperature coefficient</b>	
$Tk = 0,18 \text{ nm/K}$	

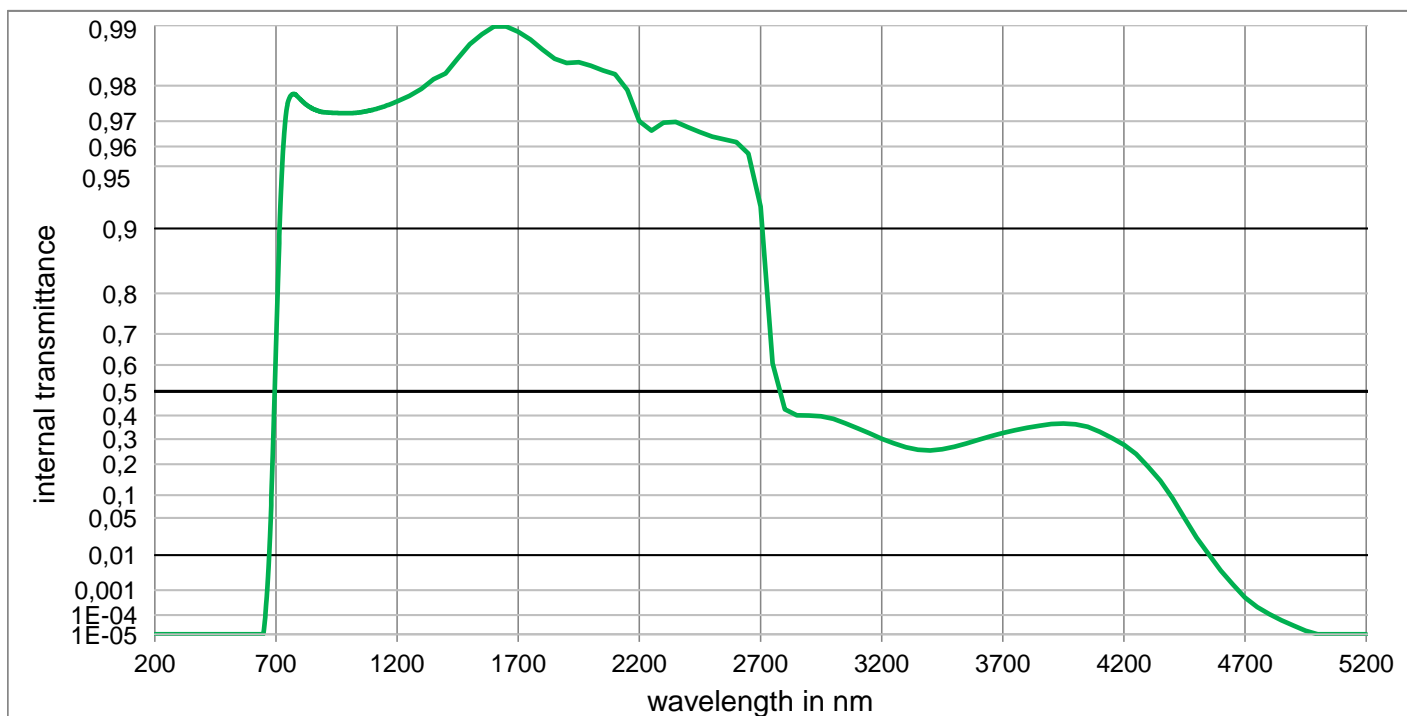
Chemical properties	
<b>Chemical resistance</b>	
FR class	= 0
SR class	= 1
AR class	= 1
<b>Resistance against humidity</b>	
Resistant glass	
see pocket catalogue "Optical Filter Glass 2020", chapter 5.5	

Colormetric properties			
	1 mm	2 mm	3 mm
Illuminant D65	x		
	y		
	Y		
	$\lambda_d$		
	$P_e$		
Illuminant A	x		
	y		
	Y		
	$\lambda_d$		
	$P_e$		

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  $\tau_i$  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	< 1,000E-05	800	9,766E-01	1100	9,736E-01	2200	9,700E-01	3700	3,257E-01
210	< 1,0E-05	510	< 1,000E-05	810	9,760E-01	1110	9,738E-01	2250	9,666E-01	3750	3,377E-01
220	< 1,0E-05	520	< 1,000E-05	820	9,754E-01	1120	9,740E-01	2300	9,695E-01	3800	3,478E-01
230	< 1,0E-05	530	< 1,000E-05	830	9,749E-01	1130	9,743E-01	2350	9,698E-01	3850	3,564E-01
240	< 1,0E-05	540	< 1,000E-05	840	9,744E-01	1140	9,745E-01	2400	9,679E-01	3900	3,633E-01
250	< 1,0E-05	550	< 1,000E-05	850	9,740E-01	1150	9,747E-01	2450	9,660E-01	3950	3,659E-01
260	< 1,0E-05	560	< 1,000E-05	860	9,737E-01	1160	9,750E-01	2500	9,642E-01	4000	3,632E-01
270	< 1,0E-05	570	< 1,000E-05	870	9,734E-01	1170	9,752E-01	2550	9,631E-01	4050	3,523E-01
280	< 1,0E-05	580	< 1,000E-05	880	9,732E-01	1180	9,755E-01	2600	9,619E-01	4100	3,308E-01
290	< 1,0E-05	590	< 1,000E-05	890	9,730E-01	1190	9,758E-01	2650	9,567E-01	4150	3,050E-01
300	< 1,0E-05	600	< 1,000E-05	900	9,729E-01	1200	9,761E-01	2700	9,214E-01	4200	2,770E-01
310	< 1,0E-05	610	< 1,000E-05	910	9,728E-01	1250	9,775E-01	2750	6,057E-01	4250	2,394E-01
320	< 1,000E-05	620	< 1,000E-05	920	9,728E-01	1300	9,793E-01	2800	4,261E-01	4300	1,911E-01
330	< 1,000E-05	630	< 1,000E-05	930	9,727E-01	1350	9,814E-01	2850	4,014E-01	4350	1,424E-01
340	< 1,000E-05	640	< 1,000E-05	940	9,727E-01	1400	9,826E-01	2900	4,002E-01	4400	9,250E-02
350	< 1,000E-05	650	1,534E-05	950	9,727E-01	1450	9,854E-01	2950	3,970E-01	4450	4,970E-02
360	< 1,000E-05	660	3,350E-04	960	9,727E-01	1500	9,876E-01	3000	3,859E-01	4500	2,317E-02
370	< 1,000E-05	670	6,330E-03	970	9,726E-01	1550	9,889E-01	3050	3,665E-01	4550	1,037E-02
380	< 1,000E-05	680	7,498E-02	980	9,726E-01	1600	9,899E-01	3100	3,462E-01	4600	4,025E-03
390	< 1,000E-05	690	3,367E-01	990	9,726E-01	1650	9,899E-01	3150	3,243E-01	4650	1,530E-03
400	< 1,000E-05	700	6,612E-01	1000	9,726E-01	1700	9,892E-01	3200	3,018E-01	4700	5,346E-04
410	< 1,000E-05	710	8,508E-01	1010	9,726E-01	1750	9,882E-01	3250	2,824E-01	4750	2,234E-04
420	< 1,000E-05	720	9,295E-01	1020	9,727E-01	1800	9,868E-01	3300	2,667E-01	4800	1,104E-04
430	< 1,000E-05	730	9,596E-01	1030	9,727E-01	1850	9,853E-01	3350	2,563E-01	4850	5,636E-05
440	< 1,000E-05	740	9,716E-01	1040	9,728E-01	1900	9,846E-01	3400	2,535E-01	4900	3,062E-05
450	< 1,000E-05	750	9,759E-01	1050	9,729E-01	1950	9,847E-01	3450	2,581E-01	4950	1,570E-05
460	< 1,000E-05	760	9,775E-01	1060	9,730E-01	2000	9,841E-01	3500	2,681E-01	5000	< 1,000E-05
470	< 1,000E-05	770	9,780E-01	1070	9,732E-01	2050	9,832E-01	3550	2,819E-01	5050	< 1,000E-05
480	< 1,000E-05	780	9,779E-01	1080	9,733E-01	2100	9,825E-01	3600	2,973E-01	5100	< 1,000E-05
490	< 1,000E-05	790	9,773E-01	1090	9,735E-01	2150	9,790E-01	3650	3,121E-01	5150	< 1,000E-05