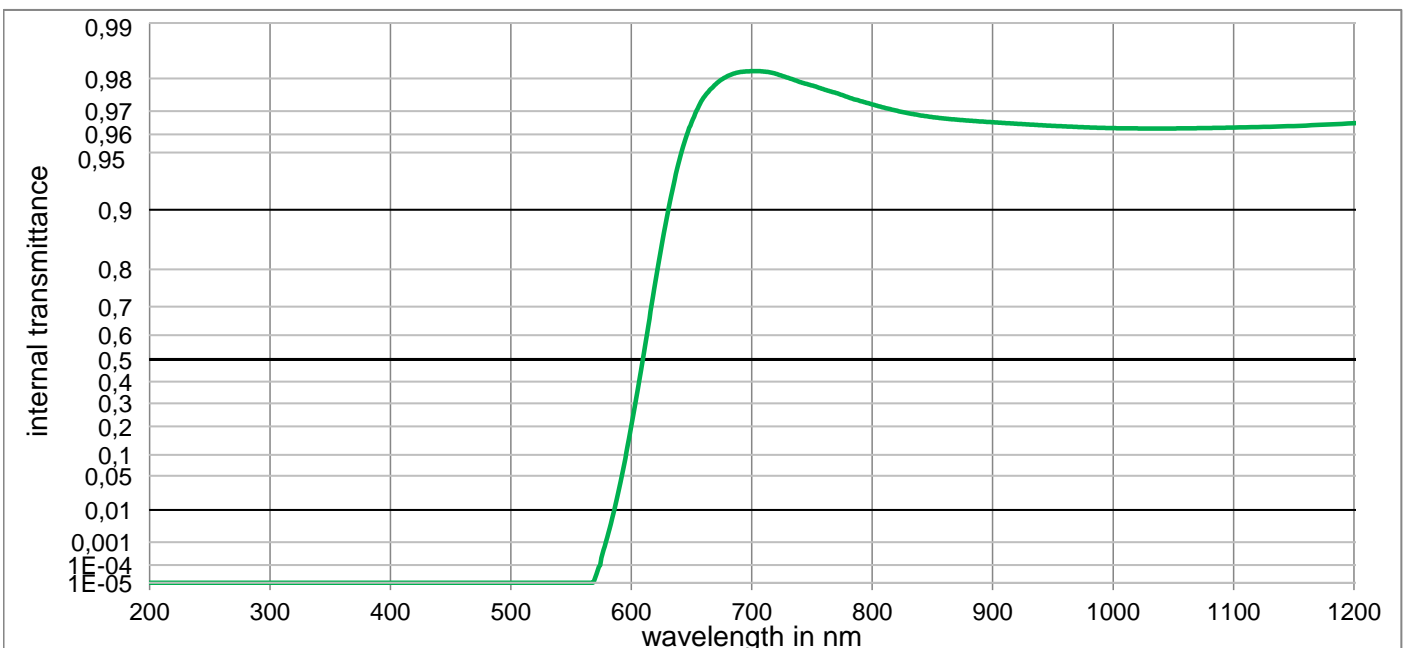
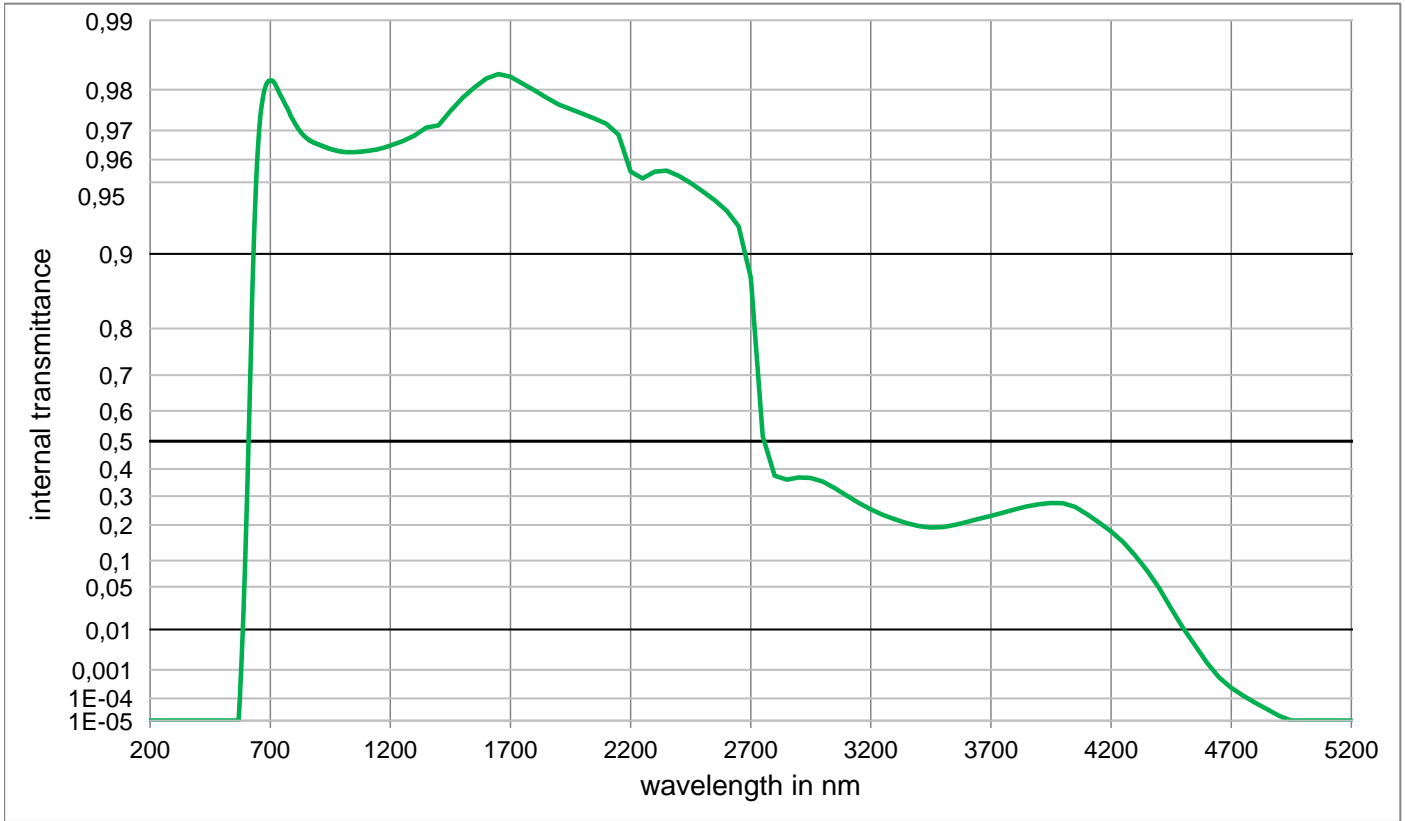


## RG610

Optical properties	Mechanical properties	Colorimetric properties																					
<b>Reflection factor</b>	<b>Reference thickness</b>	1 mm      2 mm      3 mm																					
$P_d = 0,920$	$d = 3,00 \text{ mm}$	<table border="1"> <tr> <td rowspan="5">Illuminant D65</td> <td>x</td> <td>0,629</td> <td>0,684</td> <td>0,693</td> </tr> <tr> <td>y</td> <td>0,330</td> <td>0,315</td> <td>0,307</td> </tr> <tr> <td>Y</td> <td>17,4</td> <td>11,9</td> <td>9,9</td> </tr> <tr> <td><math>\lambda_d</math></td> <td>611 nm</td> <td>617 nm</td> <td>621 nm</td> </tr> <tr> <td><math>P_e</math></td> <td>0,886</td> <td>0,996</td> <td>1,000</td> </tr> </table>	Illuminant D65	x	0,629	0,684	0,693	y	0,330	0,315	0,307	Y	17,4	11,9	9,9	$\lambda_d$	611 nm	617 nm	621 nm	$P_e$	0,886	0,996	1,000
Illuminant D65	x	0,629		0,684	0,693																		
	y	0,330		0,315	0,307																		
	Y	17,4		11,9	9,9																		
	$\lambda_d$	611 nm		617 nm	621 nm																		
	$P_e$	0,886	0,996	1,000																			
<b>Spectral values guaranteed (d = 3 mm)</b>	<b>Density</b>	<table border="1"> <tr> <td rowspan="5">Illuminant A</td> <td>x</td> <td>0,663</td> <td>0,690</td> <td>0,697</td> </tr> <tr> <td>y</td> <td>0,328</td> <td>0,310</td> <td>0,303</td> </tr> <tr> <td>Y</td> <td>26,5</td> <td>19,7</td> <td>16,8</td> </tr> <tr> <td><math>\lambda_d</math></td> <td>614 nm</td> <td>619 nm</td> <td>623 nm</td> </tr> <tr> <td><math>P_e</math></td> <td>0,939</td> <td>0,998</td> <td>0,999</td> </tr> </table>	Illuminant A	x	0,663	0,690	0,697	y	0,328	0,310	0,303	Y	26,5	19,7	16,8	$\lambda_d$	614 nm	619 nm	623 nm	$P_e$	0,939	0,998	0,999
Illuminant A	x	0,663		0,690	0,697																		
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	$\lambda_d$	614 nm		619 nm	623 nm																		
	$P_e$	0,939	0,998	0,999																			
$\lambda_{i,0,5} = 610 \text{ nm} \pm 6 \text{ nm}$	$\rho = 2,65 \text{ g/cm}^3$																						
$\lambda_s (\tau_{i,U} = 1E-05) = 530 \text{ nm}$	<b>Knoop hardness</b>																						
$\lambda_p (\tau_{i,L} = 0,94) = 690 \text{ nm}$	$HK_{[0,1/20]} = 448$																						
	<b>Thermal properties</b>																						
	<b>Transformation temperature</b>																						
	$T_g = 520 \text{ °C}$																						
	<b>Thermal expansion in <math>10^{-6}/K</math></b>																						
	$\alpha_{(-30^\circ C/+70^\circ C)} = 8,0$																						
	$\alpha_{(20^\circ C/300^\circ C)} = 9,2$																						
	<b>Temperature coefficient</b>																						
	$Tk = 0,14 \text{ nm/K}$																						
<b>Refractive indices</b>	<b>Chemical properties</b>	<b>Notes</b>																					
$n_d (587,6 \text{ nm}) = 1,51$	<b>Chemical resistance</b>																						
$n_s (852 \text{ nm}) = 1,51$	FR class	Stricking glass																					
$n_t (1014 \text{ nm}) = 1,50$	SR class = 1	Longpass filter																					
	AR class = 1																						
	<b>Resistance against humidity</b>																						
	Resistant glass																						
	see pocket catalogue "Optical Filter Glass 2024", chapter 5.5	ISO 23364:2021																					
<b>Sellmeier coefficients</b>		<b>Disclaimer</b>																					
valid from 580 nm to 2330 nm		All data without tolerances are to be understood to be reference values.																					
$B_1 = 1,2549$																							
$B_2 = 0,0002$																							
$B_3 = 0,7981$																							
$C_1 = 9,761E-03 \mu\text{m}^2$																							
$C_2 = 2,8886E-01 \mu\text{m}^2$																							
$C_3 = 98,991 \mu\text{m}^2$																							
<b>Internal quality</b>																							
Bubble class 3																							



## RG610



**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	9,724E-01	1100	9,632E-01	2200	9,550E-01	3700	2,302E-01
210	< 1,0E-05	510	< 1,000E-05	810	9,713E-01	1110	9,633E-01	2250	9,519E-01	3750	2,411E-01
220	< 1,0E-05	520	< 1,000E-05	820	9,702E-01	1120	9,635E-01	2300	9,550E-01	3800	2,527E-01
230	< 1,0E-05	530	< 1,000E-05	830	9,692E-01	1130	9,636E-01	2350	9,554E-01	3850	2,631E-01
240	< 1,0E-05	540	< 1,000E-05	840	9,684E-01	1140	9,637E-01	2400	9,532E-01	3900	2,708E-01
250	< 1,0E-05	550	< 1,000E-05	850	9,677E-01	1150	9,639E-01	2450	9,496E-01	3950	2,756E-01
260	< 1,0E-05	560	< 1,000E-05	860	9,671E-01	1160	9,641E-01	2500	9,454E-01	4000	2,742E-01
270	< 1,0E-05	570	2,118E-05	870	9,667E-01	1170	9,644E-01	2550	9,405E-01	4050	2,614E-01
280	< 1,0E-05	580	1,470E-03	880	9,663E-01	1180	9,646E-01	2600	9,339E-01	4100	2,362E-01
290	< 1,0E-05	590	3,112E-02	890	9,659E-01	1190	9,649E-01	2650	9,232E-01	4150	2,080E-01
300	< 1,0E-05	600	2,019E-01	900	9,656E-01	1200	9,652E-01	2700	8,746E-01	4200	1,793E-01
310	< 1,0E-05	610	5,164E-01	910	9,653E-01	1250	9,666E-01	2750	5,165E-01	4250	1,482E-01
320	< 1,000E-05	620	7,703E-01	920	9,649E-01	1300	9,685E-01	2800	3,748E-01	4300	1,123E-01
330	< 1,000E-05	630	8,948E-01	930	9,646E-01	1350	9,708E-01	2850	3,606E-01	4350	7,840E-02
340	< 1,000E-05	640	9,454E-01	940	9,643E-01	1400	9,715E-01	2900	3,684E-01	4400	4,815E-02
350	< 1,000E-05	650	9,655E-01	950	9,640E-01	1450	9,753E-01	2950	3,671E-01	4450	2,387E-02
360	< 1,000E-05	660	9,746E-01	960	9,638E-01	1500	9,783E-01	3000	3,529E-01	4500	1,073E-02
370	< 1,000E-05	670	9,785E-01	970	9,635E-01	1550	9,804E-01	3050	3,291E-01	4550	4,530E-03
380	< 1,000E-05	680	9,806E-01	980	9,633E-01	1600	9,821E-01	3100	3,018E-01	4600	1,580E-03
390	< 1,000E-05	690	9,815E-01	990	9,631E-01	1650	9,829E-01	3150	2,753E-01	4650	5,741E-04
400	< 1,000E-05	700	9,817E-01	1000	9,630E-01	1700	9,824E-01	3200	2,529E-01	4700	2,512E-04
410	< 1,000E-05	710	9,817E-01	1010	9,629E-01	1750	9,812E-01	3250	2,334E-01	4750	1,279E-04
420	< 1,000E-05	720	9,812E-01	1020	9,628E-01	1800	9,799E-01	3300	2,183E-01	4800	6,668E-05
430	< 1,000E-05	730	9,802E-01	1030	9,628E-01	1850	9,783E-01	3350	2,060E-01	4850	3,420E-05
440	< 1,000E-05	740	9,791E-01	1040	9,628E-01	1900	9,768E-01	3400	1,965E-01	4900	1,687E-05
450	< 1,000E-05	750	9,782E-01	1050	9,628E-01	1950	9,757E-01	3450	1,917E-01	4950	< 1,000E-05
460	< 1,000E-05	760	9,771E-01	1060	9,629E-01	2000	9,746E-01	3500	1,933E-01	5000	< 1,000E-05
470	< 1,000E-05	770	9,761E-01	1070	9,630E-01	2050	9,733E-01	3550	1,999E-01	5050	< 1,000E-05
480	< 1,000E-05	780	9,748E-01	1080	9,630E-01	2100	9,719E-01	3600	2,098E-01	5100	< 1,000E-05
490	< 1,000E-05	790	9,736E-01	1090	9,631E-01	2150	9,688E-01	3650	2,201E-01	5150	< 1,000E-05