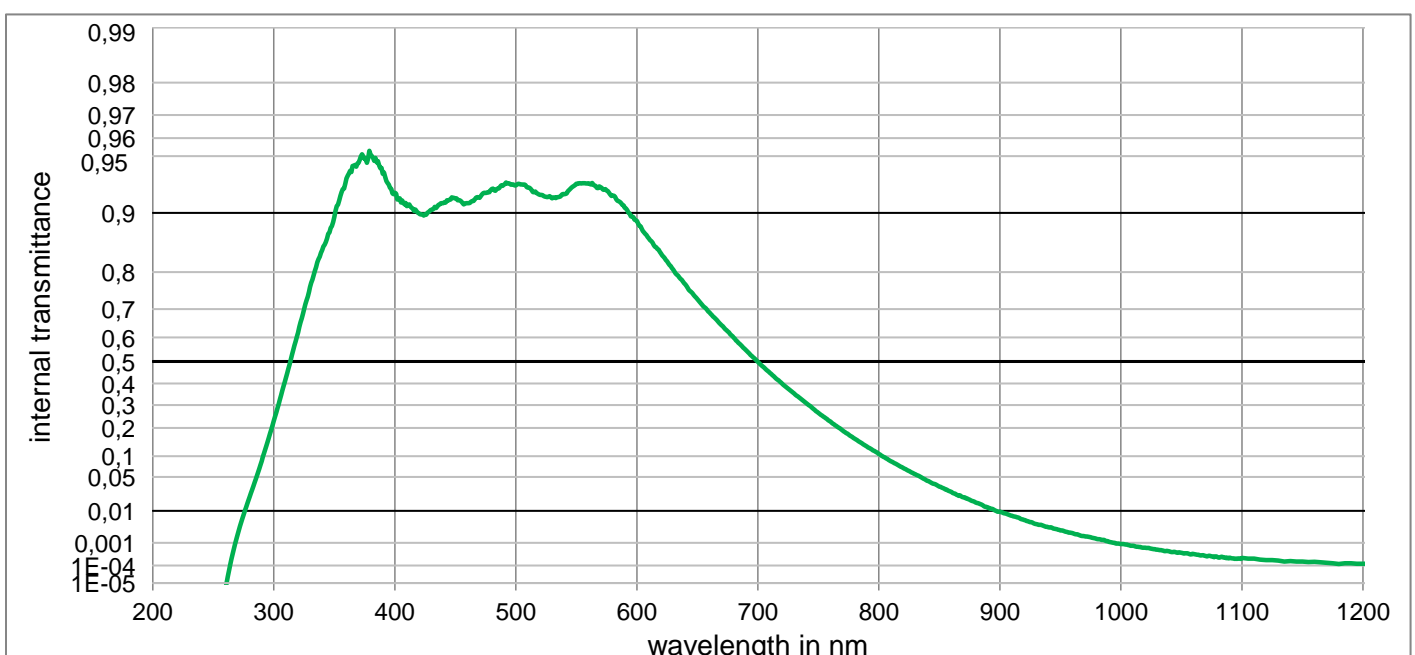
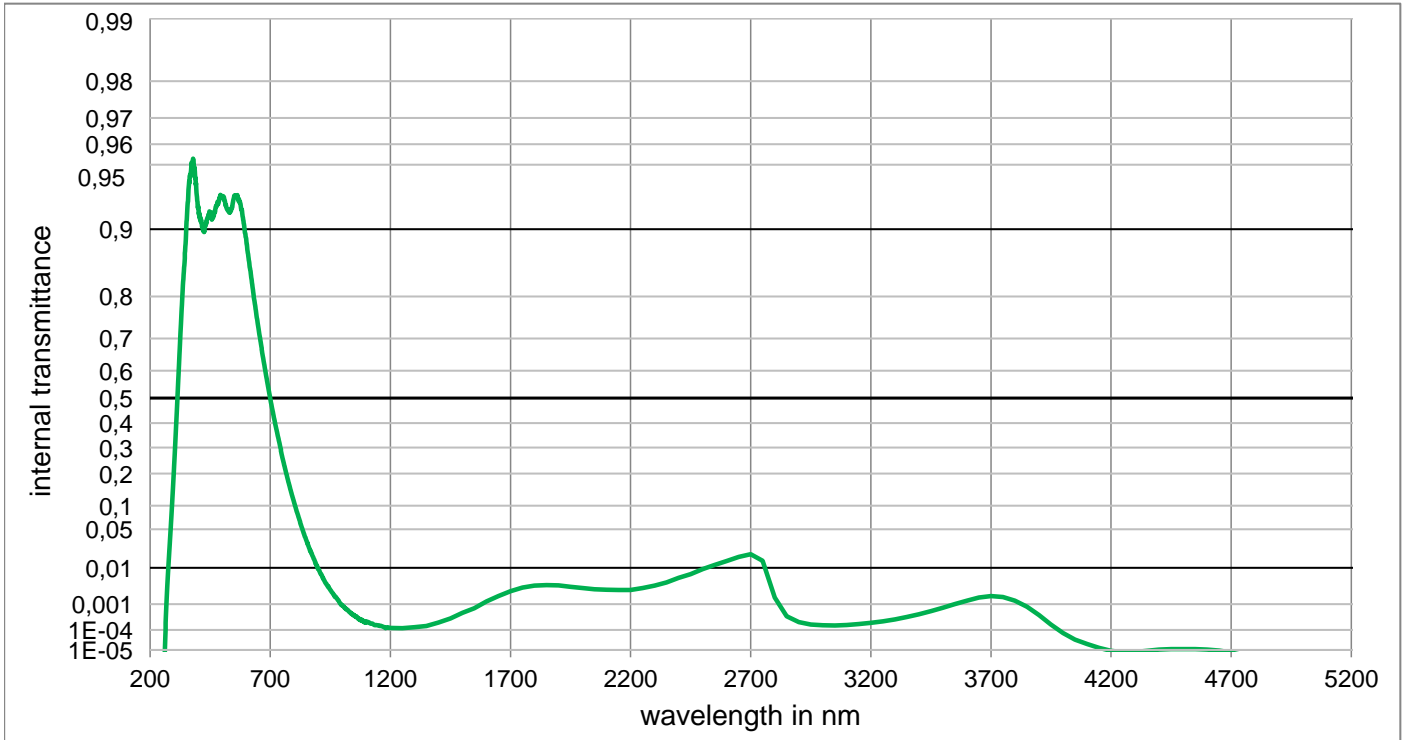


## KG3

Optical properties		Mechanical properties		Colorimetric properties			
<b>Reflection factor</b>		<b>Reference thickness</b>		1 mm      2 mm      3 mm			
$P_d = 0,920$		$d = 2,00 \text{ mm}$		Illuminant D65	x	0,309      0,306      0,303	
<b>Spectral values guaranteed</b>		<b>Density</b>			y	0,330      0,332      0,333	
$\tau_i (365 \text{ nm}) \geq 0,86$	$\rho = 2,52 \text{ g/cm}^3$		Y		87,1      82,4      78,1		
$\tau_i (500 \text{ nm}) \geq 0,88$	<b>Knoop hardness</b>		$\lambda_d$		496 nm      496 nm      496 nm		
$\tau_i (600 \text{ nm}) \geq 0,83$	$HK[0.1/20] = 442$		$P_e$		0,012      0,023      0,033		
$\tau_i (700 \text{ nm}) \leq 0,55$	<b>Thermal properties</b>		Illuminant A	x	0,442      0,437      0,432		
$\tau_i (800 \text{ nm}) \leq 0,14$	<b>Transformation temperature</b>			y	0,410      0,413      0,416		
$\tau_i (900 \text{ nm}) \leq 0,03$	$T_g = 581 \text{ }^\circ\text{C}$			Y	86,4      81,3      76,6		
$\tau_i (1060 \text{ nm}) \leq 0,001$	<b>Thermal expansion in</b> $10^{-6}/\text{K}$			$\lambda_d$	504 nm      505 nm      505 nm		
$\tau_i (2200 \text{ nm}) \leq 0,01$	$\alpha_{(-30^\circ\text{C}/+70^\circ\text{C})} = 5,3$			$P_e$	0,012      0,024      0,035		
<b>Refractive indices</b>		$\alpha_{(20^\circ\text{C}/300^\circ\text{C})} = 6,1$		<b>Notes</b>			
$n_F (486 \text{ nm}) = 1,522$	<b>Chemical properties</b>		<b>UV</b>				
$n_e (546 \text{ nm}) = 1,518$	<b>Chemical resistance</b>		Transmission changes are possible under the action of intense ultraviolet radiation.				
$n_d (587,6 \text{ nm}) = 1,516$	FR class = 0		Ionically colored glass				
<b>Sellmeier coefficients</b>		SR class = 2		Shortpass filter			
valid from 400 nm to 1600 nm		AR class = 4		Heat protection filter			
$B_1 = 1,1717$	<b>Resistance against humidity</b>		ISO 23364:2021				
$B_2 = 0,0980$	Delicate glass		<b>Disclaimer</b>				
$B_3 = 0,0713$	see pocket catalogue "Optical Filter Glass 2024", chapter 5.5		All data without tolerances are to be understood to be reference values.				
$C_1 = 6,324\text{E-}03 \mu\text{m}^2$	<b>Internal quality</b>						
$C_2 = 3,1092\text{E-}02 \mu\text{m}^2$	Bubble class 3						
$C_3 = 10,066 \mu\text{m}^2$							



KG3



**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	< 1,000E-05	500	9,282E-01	800	1,066E-01	1100	2,334E-04	2200	2,727E-03	3700	1,822E-03
210	< 1,000E-05	510	9,265E-01	810	8,548E-02	1110	2,163E-04	2250	3,103E-03	3750	1,693E-03
220	< 1,000E-05	520	9,194E-01	820	6,913E-02	1120	1,828E-04	2300	3,642E-03	3800	1,292E-03
230	< 1,000E-05	530	9,162E-01	830	5,533E-02	1130	1,729E-04	2350	4,394E-03	3850	8,111E-04
240	< 1,000E-05	540	9,202E-01	840	4,313E-02	1140	1,649E-04	2400	5,839E-03	3900	4,055E-04
250	< 1,000E-05	550	9,298E-01	850	3,387E-02	1150	1,586E-04	2450	7,150E-03	3950	1,710E-04
260	< 1,000E-05	560	9,303E-01	860	2,668E-02	1160	1,510E-04	2500	9,398E-03	4000	7,230E-05
270	1,919E-03	570	9,267E-01	870	2,066E-02	1170	1,379E-04	2550	1,160E-02	4050	3,512E-05
280	2,114E-02	580	9,189E-01	880	1,585E-02	1180	1,201E-04	2600	1,403E-02	4100	2,115E-05
290	8,698E-02	590	9,059E-01	890	1,195E-02	1190	1,309E-04	2650	1,687E-02	4150	1,291E-05
300	2,288E-01	600	8,899E-01	900	9,471E-03	1200	1,227E-04	2700	1,917E-02	4200	< 1,000E-05
310	4,257E-01	610	8,645E-01	910	7,401E-03	1250	1,188E-04	2750	1,420E-02	4250	< 1,000E-05
320	6,184E-01	620	8,381E-01	920	5,677E-03	1300	1,322E-04	2800	1,641E-03	4300	< 1,000E-05
330	7,634E-01	630	8,054E-01	930	4,323E-03	1350	1,495E-04	2850	3,690E-04	4350	< 1,000E-05
340	8,445E-01	640	7,704E-01	940	3,458E-03	1400	2,072E-04	2900	2,146E-04	4400	1,042E-05
350	8,948E-01	650	7,303E-01	950	2,746E-03	1450	3,025E-04	2950	1,725E-04	4450	1,106E-05
360	9,343E-01	660	6,891E-01	960	2,212E-03	1500	4,975E-04	3000	1,586E-04	4500	1,106E-05
370	9,455E-01	670	6,451E-01	970	1,740E-03	1550	7,248E-04	3050	1,571E-04	4550	1,106E-05
380	9,509E-01	680	5,988E-01	980	1,401E-03	1600	1,222E-03	3100	1,649E-04	4600	1,042E-05
390	9,379E-01	690	5,497E-01	990	1,092E-03	1650	1,812E-03	3150	1,794E-04	4650	< 1,000E-05
400	9,217E-01	700	4,982E-01	1000	9,072E-04	1700	2,542E-03	3200	2,000E-04	4700	< 1,000E-05
410	9,079E-01	710	4,482E-01	1010	7,715E-04	1750	3,228E-03	3250	2,324E-04	4750	< 1,000E-05
420	8,992E-01	720	3,989E-01	1020	6,422E-04	1800	3,652E-03	3300	2,755E-04	4800	< 1,000E-05
430	9,037E-01	730	3,535E-01	1030	5,357E-04	1850	3,770E-03	3350	3,430E-04	4850	< 1,000E-05
440	9,112E-01	740	3,084E-01	1040	4,512E-04	1900	3,681E-03	3400	4,356E-04	4900	< 1,000E-05
450	9,159E-01	750	2,645E-01	1050	3,972E-04	1950	3,366E-03	3450	5,699E-04	4950	< 1,000E-05
460	9,109E-01	760	2,263E-01	1060	3,472E-04	2000	3,121E-03	3500	7,511E-04	5000	< 1,000E-05
470	9,167E-01	770	1,901E-01	1070	2,827E-04	2050	2,861E-03	3550	9,992E-04	5050	< 1,000E-05
480	9,250E-01	780	1,584E-01	1080	2,515E-04	2100	2,785E-03	3600	1,302E-03	5100	< 1,000E-05
490	9,288E-01	790	1,302E-01	1090	2,367E-04	2150	2,752E-03	3650	1,630E-03	5150	< 1,000E-05