

# Data Sheet



## UG1

Density	
$\rho$ [g/cm <sup>3</sup> ]	2.77

Notes
Ionically colored glass
Bandpass filter

Reflection factor	
$P_d$	0.914

Bubble content	
Bubble class	1

Reference thickness	
d [mm]	1

Chemical Resistance	
FR class	0
SR class	1.0
AR class	1.0

Spectral values guaranteed		
$\tau_i$ (365nm)	$\geq$	0.8
$\tau_i$ (405nm)	$\leq$	0.1
$\tau_i$ (694nm)	$\leq$	0.06
$\tau_i$ (750nm)	$\leq$	0.53

Transformation temperature	
$T_g$ [°C]	603

Thermal expansion	
$\alpha_{30/+70^\circ\text{C}}$ [10 <sup>-6</sup> /K]	7.9
$\alpha_{20/300^\circ\text{C}}$ [10 <sup>-6</sup> /K]	8.9
$\alpha_{20/200^\circ\text{C}}$ [10 <sup>-6</sup> /K]	

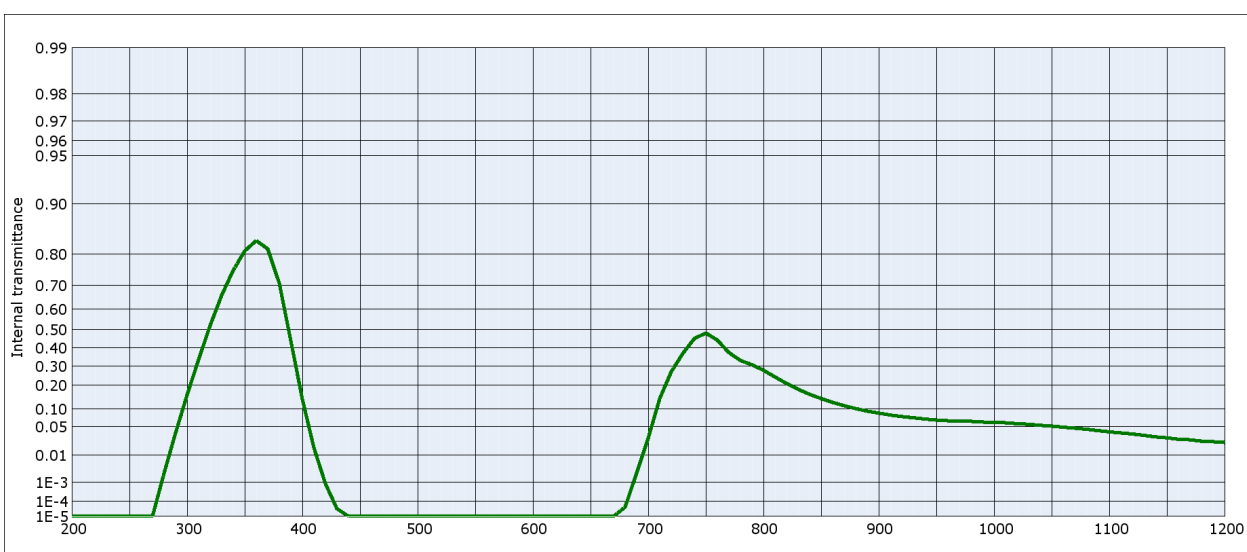
Refractive Index n	
$n_i$ (365.0 nm) = 1.570	
$n_d$ (587.6 nm) = 1.540	

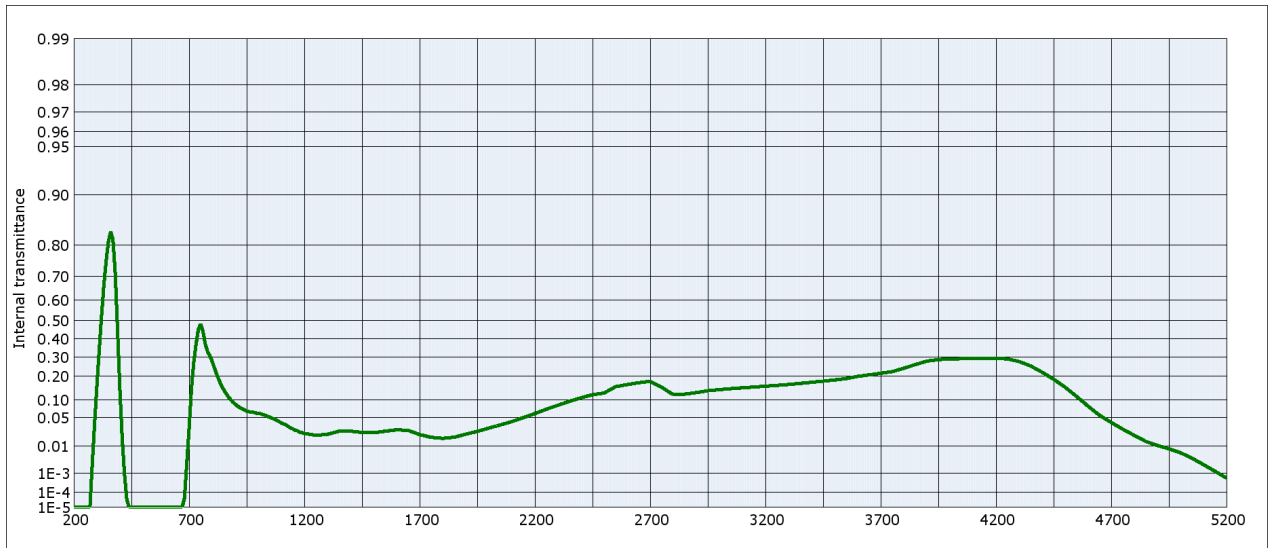
Temperature coefficient	
$T_K$ [nm/°C]	

☀️  
Transmission changes are possible under the action of intense ultraviolet radiation.

All data without tolerances are to be understood to be reference values. Guaranteed values are only those values listed in the section "Spectral values guaranteed".

Colorimetric evaluation												
Illuminant	A (Planck T = 2856 K)			Illuminant	Planck T = 3200 K			Illuminant	D65 (T <sub>C</sub> = 6504 K)			
	d [mm]	1	2		3	d [mm]	1		2	3	d [mm]	1
x				x				x				
y				y				y				
Y				Y				Y				
$\lambda_d$ [nm]				$\lambda_d$ [nm]				$\lambda_d$ [nm]				
$P_e$				$P_e$				$P_e$				





**Internal transmittance  $\tau_i$  at reference thickness  $d = 1$  mm**  
**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	$< 10^{-5}$	500	$< 10^{-5}$	800	0.277	1100	$3.9 \cdot 10^{-2}$	2200	$6.0 \cdot 10^{-2}$	3700	0.215
210	$< 10^{-5}$	510	$< 10^{-5}$	810	0.242	1110	$3.7 \cdot 10^{-2}$	2250	$7.2 \cdot 10^{-2}$	3750	0.223
220	$< 10^{-5}$	520	$< 10^{-5}$	820	0.209	1120	$3.5 \cdot 10^{-2}$	2300	$8.3 \cdot 10^{-2}$	3800	0.240
230	$< 10^{-5}$	530	$< 10^{-5}$	830	0.181	1130	$3.3 \cdot 10^{-2}$	2350	$9.6 \cdot 10^{-2}$	3850	0.259
240	$< 10^{-5}$	540	$< 10^{-5}$	840	0.158	1140	$3.0 \cdot 10^{-2}$	2400	0.108	3900	0.277
250	$< 10^{-5}$	550	$< 10^{-5}$	850	0.140	1150	$2.9 \cdot 10^{-2}$	2450	0.120	3950	0.286
260	$< 10^{-5}$	560	$< 10^{-5}$	860	0.125	1160	$2.7 \cdot 10^{-2}$	2500	0.126	4000	0.289
270	$< 10^{-5}$	570	$< 10^{-5}$	870	0.112	1170	$2.6 \cdot 10^{-2}$	2550	0.152	4050	0.291
280	$2.4 \cdot 10^{-3}$	580	$< 10^{-5}$	880	0.102	1180	$2.4 \cdot 10^{-2}$	2600	0.162	4100	0.293
290	$3.7 \cdot 10^{-2}$	590	$< 10^{-5}$	890	$9.3 \cdot 10^{-2}$	1190	$2.3 \cdot 10^{-2}$	2650	0.170	4150	0.293
300	0.155	600	$< 10^{-5}$	900	$8.7 \cdot 10^{-2}$	1200	$2.2 \cdot 10^{-2}$	2700	0.176	4200	0.293
310	0.335	610	$< 10^{-5}$	910	$8.1 \cdot 10^{-2}$	1250	$2.0 \cdot 10^{-2}$	2750	0.150	4250	0.289
320	0.519	620	$< 10^{-5}$	920	$7.6 \cdot 10^{-2}$	1300	$2.1 \cdot 10^{-2}$	2800	0.120	4300	0.276
330	0.659	630	$< 10^{-5}$	930	$7.3 \cdot 10^{-2}$	1350	$2.5 \cdot 10^{-2}$	2850	0.122	4350	0.252
340	0.751	640	$< 10^{-5}$	940	$6.9 \cdot 10^{-2}$	1400	$2.6 \cdot 10^{-2}$	2900	0.128	4400	0.220
350	0.807	650	$< 10^{-5}$	950	$6.6 \cdot 10^{-2}$	1450	$2.4 \cdot 10^{-2}$	2950	0.135	4450	0.186
360	0.833	660	$< 10^{-5}$	960	$6.5 \cdot 10^{-2}$	1500	$2.3 \cdot 10^{-2}$	3000	0.140	4500	0.150
370	0.812	670	$< 10^{-5}$	970	$6.3 \cdot 10^{-2}$	1550	$2.5 \cdot 10^{-2}$	3050	0.144	4550	0.113
380	0.706	680	$4.4 \cdot 10^{-5}$	980	$6.3 \cdot 10^{-2}$	1600	$2.7 \cdot 10^{-2}$	3100	0.148	4600	$8.0 \cdot 10^{-2}$
390	0.438	690	$2.5 \cdot 10^{-3}$	990	$6.1 \cdot 10^{-2}$	1650	$2.7 \cdot 10^{-2}$	3150	0.151	4650	$5.5 \cdot 10^{-2}$
400	0.138	700	$2.8 \cdot 10^{-2}$	1000	$6.0 \cdot 10^{-2}$	1700	$2.1 \cdot 10^{-2}$	3200	0.155	4700	$4.0 \cdot 10^{-2}$
410	$1.7 \cdot 10^{-2}$	710	0.139	1010	$5.9 \cdot 10^{-2}$	1750	$1.8 \cdot 10^{-2}$	3250	0.158	4750	$2.8 \cdot 10^{-2}$
420	$8.6 \cdot 10^{-4}$	720	0.269	1020	$5.7 \cdot 10^{-2}$	1800	$1.7 \cdot 10^{-2}$	3300	0.162	4800	$2.0 \cdot 10^{-2}$
430	$3.5 \cdot 10^{-5}$	730	0.368	1030	$5.6 \cdot 10^{-2}$	1850	$1.8 \cdot 10^{-2}$	3350	0.167	4850	$1.4 \cdot 10^{-2}$
440	$< 10^{-5}$	740	0.450	1040	$5.3 \cdot 10^{-2}$	1900	$2.1 \cdot 10^{-2}$	3400	0.172	4900	$1.1 \cdot 10^{-2}$
450	$< 10^{-5}$	750	0.480	1050	$5.1 \cdot 10^{-2}$	1950	$2.5 \cdot 10^{-2}$	3450	0.177	4950	$8.4 \cdot 10^{-3}$
460	$< 10^{-5}$	760	0.442	1060	$4.9 \cdot 10^{-2}$	2000	$3.0 \cdot 10^{-2}$	3500	0.183	5000	$6.3 \cdot 10^{-3}$
470	$< 10^{-5}$	770	0.374	1070	$4.7 \cdot 10^{-2}$	2050	$3.5 \cdot 10^{-2}$	3550	0.189	5050	$4.1 \cdot 10^{-3}$
480	$< 10^{-5}$	780	0.330	1080	$4.5 \cdot 10^{-2}$	2100	$4.2 \cdot 10^{-2}$	3600	0.200	5100	$2.3 \cdot 10^{-3}$
490	$< 10^{-5}$	790	0.307	1090	$4.2 \cdot 10^{-2}$	2150	$5.0 \cdot 10^{-2}$	3650	0.207	5150	$1.2 \cdot 10^{-3}$