

# DATA SHEET

# SCHOTT UG2A

## UG2A

Reflection factor	
$P_d$	0.918

Reference thickness	
d [mm]	3

Spectral values guaranteed		
$\tau_i$ (303nm)	$\leq$	0.07
$\tau_i$ (365nm)	$\geq$	0.81
$\tau_i$ (405nm)	$\leq$	0.1
$\tau_i$ (694nm)	$\leq$	0.04
$\tau_i$ (750nm)	$\leq$	0.52

Refractive index n	
n (296.7 nm)	= 1.567
n (302.1 nm)	= 1.565
$n_i$ (365.0 nm)	= 1.546
$n_e$ (546.1 nm)	= 1.525
Sellmeier coefficients on request	

Density	
$\rho$ [g/cm <sup>3</sup> ]	2.60


Bubble content	
Bubble class	2

Chemical Resistance	
FR class	0
SR class	1.0
AR class	1.3

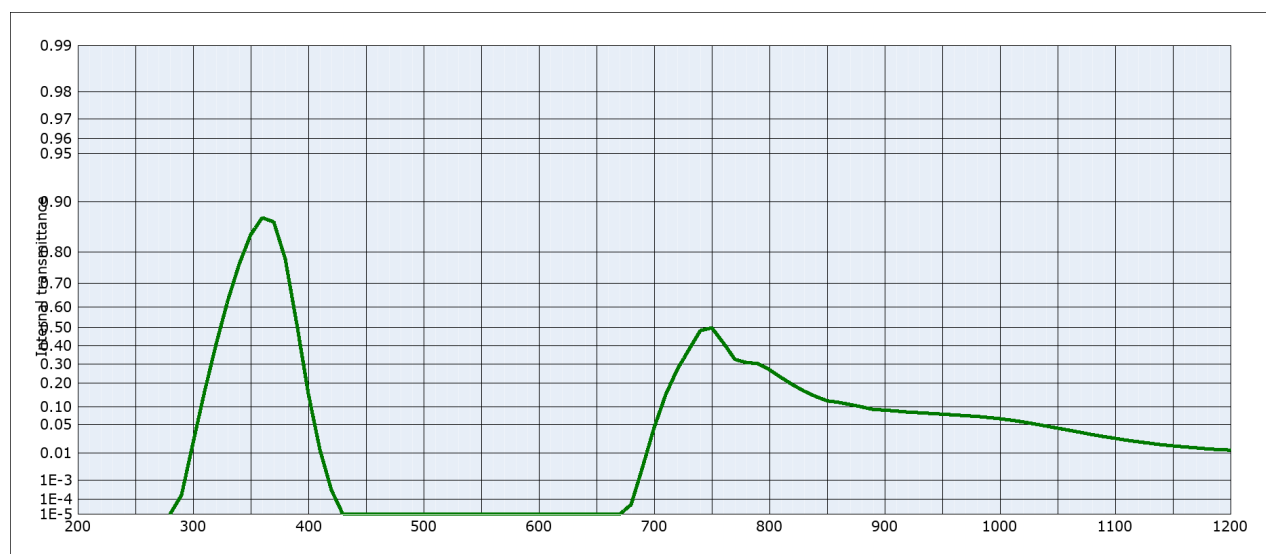
Transformation temperature	
T <sub>g</sub> [°C]	484

Thermal expansion	
$\alpha_{-30/+70^\circ\text{C}}$ [10 <sup>-6</sup> /K]	8.7
$\alpha_{20/300^\circ\text{C}}$ [10 <sup>-6</sup> /K]	9.9
$\alpha_{20/200^\circ\text{C}}$ [10 <sup>-6</sup> /K]	

Temperature coefficient	
T <sub>K</sub> [nm/°C]	

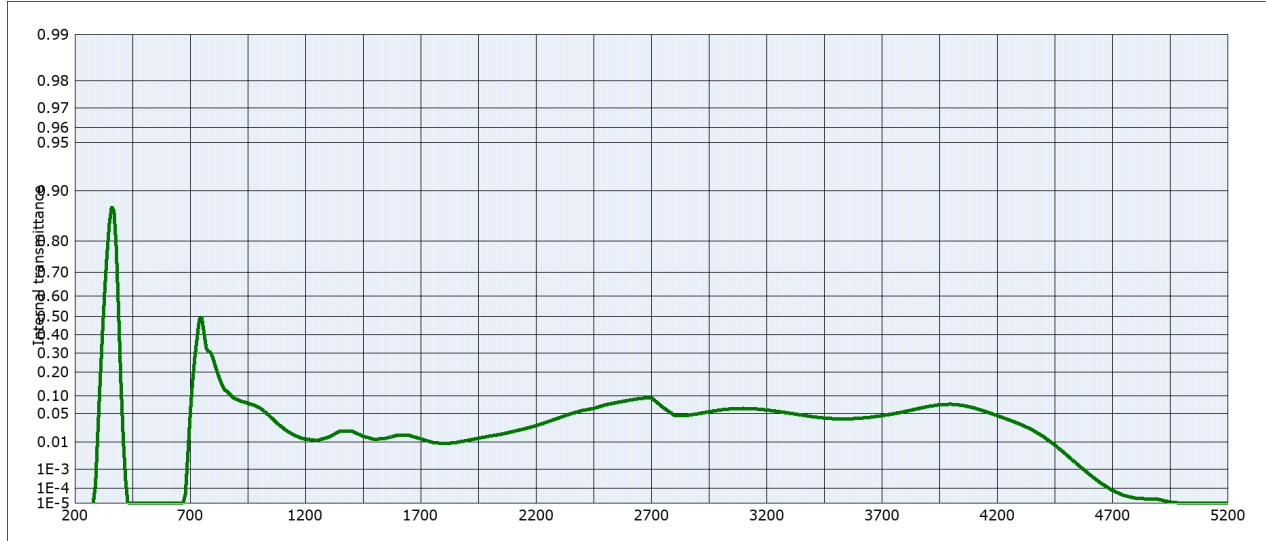
Notes	
Ionically colored glass	
Bandpass filter	
	Transmission changes are possible under the action of intense ultraviolet radiation.
All data without tolerances are to be understood to be reference values.	
Guaranteed values are only those values listed in the section "Spectral values guaranteed".	

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	2	3			
x								x								x							
y								y								y							
Y								Y								Y							
λ <sub>d</sub> [nm]								λ <sub>d</sub> [nm]								λ <sub>d</sub> [nm]							
P <sub>e</sub>								P <sub>e</sub>								P <sub>e</sub>							



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**Internal transmittance  $\tau_i$  at reference thickness  $d = 3$  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	0.269	1100	$2.5 \cdot 10^{-2}$	2200	$2.8 \cdot 10^{-2}$	3700	$4.5 \cdot 10^{-2}$
210	$< 10^{-5}$	510	$< 10^{-5}$	810	0.229	1110	$2.3 \cdot 10^{-2}$	2250	$3.4 \cdot 10^{-2}$	3750	$5.0 \cdot 10^{-2}$
220	$< 10^{-5}$	520	$< 10^{-5}$	820	0.193	1120	$2.1 \cdot 10^{-2}$	2300	$4.1 \cdot 10^{-2}$	3800	$5.5 \cdot 10^{-2}$
230	$< 10^{-5}$	530	$< 10^{-5}$	830	0.164	1130	$1.9 \cdot 10^{-2}$	2350	$4.9 \cdot 10^{-2}$	3850	$6.1 \cdot 10^{-2}$
240	$< 10^{-5}$	540	$< 10^{-5}$	840	0.141	1140	$1.7 \cdot 10^{-2}$	2400	$5.7 \cdot 10^{-2}$	3900	$6.8 \cdot 10^{-2}$
250	$< 10^{-5}$	550	$< 10^{-5}$	850	0.123	1150	$1.6 \cdot 10^{-2}$	2450	$6.3 \cdot 10^{-2}$	3950	$7.3 \cdot 10^{-2}$
260	$< 10^{-5}$	560	$< 10^{-5}$	860	0.117	1160	$1.5 \cdot 10^{-2}$	2500	$7.2 \cdot 10^{-2}$	4000	$7.4 \cdot 10^{-2}$
270	$< 10^{-5}$	570	$< 10^{-5}$	870	0.109	1170	$1.4 \cdot 10^{-2}$	2550	$7.9 \cdot 10^{-2}$	4050	$7.1 \cdot 10^{-2}$
280	$< 10^{-5}$	580	$< 10^{-5}$	880	0.101	1180	$1.3 \cdot 10^{-2}$	2600	$8.6 \cdot 10^{-2}$	4100	$6.4 \cdot 10^{-2}$
290	$1.8 \cdot 10^{-4}$	590	$< 10^{-5}$	890	$9.2 \cdot 10^{-2}$	1190	$1.3 \cdot 10^{-2}$	2650	$9.2 \cdot 10^{-2}$	4150	$5.5 \cdot 10^{-2}$
300	$2.0 \cdot 10^{-2}$	600	$< 10^{-5}$	900	$9.0 \cdot 10^{-2}$	1200	$1.2 \cdot 10^{-2}$	2700	$9.5 \cdot 10^{-2}$	4200	$4.6 \cdot 10^{-2}$
310	0.162	610	$< 10^{-5}$	910	$8.7 \cdot 10^{-2}$	1250	$1.1 \cdot 10^{-2}$	2750	$6.6 \cdot 10^{-2}$	4250	$3.8 \cdot 10^{-2}$
320	0.409	620	$< 10^{-5}$	920	$8.4 \cdot 10^{-2}$	1300	$1.4 \cdot 10^{-2}$	2800	$4.7 \cdot 10^{-2}$	4300	$3.0 \cdot 10^{-2}$
330	0.627	630	$< 10^{-5}$	930	$8.2 \cdot 10^{-2}$	1350	$2.0 \cdot 10^{-2}$	2850	$4.6 \cdot 10^{-2}$	4350	$2.2 \cdot 10^{-2}$
340	0.764	640	$< 10^{-5}$	940	$7.9 \cdot 10^{-2}$	1400	$2.1 \cdot 10^{-2}$	2900	$4.9 \cdot 10^{-2}$	4400	$1.5 \cdot 10^{-2}$
350	0.841	650	$< 10^{-5}$	950	$7.7 \cdot 10^{-2}$	1450	$1.5 \cdot 10^{-2}$	2950	$5.4 \cdot 10^{-2}$	4450	$8.3 \cdot 10^{-3}$
360	0.875	660	$< 10^{-5}$	960	$7.5 \cdot 10^{-2}$	1500	$1.2 \cdot 10^{-2}$	3000	$5.9 \cdot 10^{-2}$	4500	$3.9 \cdot 10^{-3}$
370	0.867	670	$< 10^{-5}$	970	$7.3 \cdot 10^{-2}$	1550	$1.3 \cdot 10^{-2}$	3050	$6.2 \cdot 10^{-2}$	4550	$1.6 \cdot 10^{-3}$
380	0.779	680	$4.7 \cdot 10^{-5}$	980	$7.1 \cdot 10^{-2}$	1600	$1.6 \cdot 10^{-2}$	3100	$6.3 \cdot 10^{-2}$	4600	$5.9 \cdot 10^{-4}$
390	0.515	690	$3.5 \cdot 10^{-3}$	990	$6.8 \cdot 10^{-2}$	1650	$1.6 \cdot 10^{-2}$	3150	$6.2 \cdot 10^{-2}$	4650	$2.1 \cdot 10^{-4}$
400	0.152	700	$4.4 \cdot 10^{-2}$	1000	$6.4 \cdot 10^{-2}$	1700	$1.3 \cdot 10^{-2}$	3200	$5.9 \cdot 10^{-2}$	4700	$7.7 \cdot 10^{-5}$
410	$1.3 \cdot 10^{-2}$	710	0.148	1010	$6.1 \cdot 10^{-2}$	1750	$1.0 \cdot 10^{-2}$	3250	$5.5 \cdot 10^{-2}$	4750	$3.6 \cdot 10^{-5}$
420	$3.3 \cdot 10^{-4}$	720	0.270	1020	$5.6 \cdot 10^{-2}$	1800	$9.1 \cdot 10^{-3}$	3300	$5.1 \cdot 10^{-2}$	4800	$2.4 \cdot 10^{-5}$
430	$< 10^{-5}$	730	0.377	1030	$5.2 \cdot 10^{-2}$	1850	$9.8 \cdot 10^{-3}$	3350	$4.7 \cdot 10^{-2}$	4850	$2.1 \cdot 10^{-5}$
440	$< 10^{-5}$	740	0.482	1040	$4.7 \cdot 10^{-2}$	1900	$1.1 \cdot 10^{-2}$	3400	$4.4 \cdot 10^{-2}$	4900	$1.9 \cdot 10^{-5}$
450	$< 10^{-5}$	750	0.497	1050	$4.3 \cdot 10^{-2}$	1950	$1.3 \cdot 10^{-2}$	3450	$4.1 \cdot 10^{-2}$	4950	$1.3 \cdot 10^{-5}$
460	$< 10^{-5}$	760	0.416	1060	$3.8 \cdot 10^{-2}$	2000	$1.5 \cdot 10^{-2}$	3500	$3.9 \cdot 10^{-2}$	5000	$< 10^{-5}$
470	$< 10^{-5}$	770	0.325	1070	$3.5 \cdot 10^{-2}$	2050	$1.7 \cdot 10^{-2}$	3550	$3.9 \cdot 10^{-2}$	5050	$< 10^{-5}$
480	$< 10^{-5}$	780	0.308	1080	$3.1 \cdot 10^{-2}$	2100	$2.0 \cdot 10^{-2}$	3600	$4.0 \cdot 10^{-2}$	5100	$< 10^{-5}$
490	$< 10^{-5}$	790	0.302	1090	$2.8 \cdot 10^{-2}$	2150	$2.3 \cdot 10^{-2}$	3650	$4.2 \cdot 10^{-2}$	5150	$< 10^{-5}$