DATA SHEET

SCHOTT UG1

UG1

Reflection factor	
P_d	0.914

Reference thickness	
d [mm]	1

Spectral values guaranteed		
τ_i (365nm)	≥	0.8
τ_i (405nm)	≤	0.1
τ_i (694nm)	≤	0.06
τ_i (750nm)	≤	0.53

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

Density	
ρ [g/cm^3]	2.77

Bubble content	
Bubble class	1

Chemical Resistance	
FR class	0
SR class	1.0
AR class	1.0

Transformation temperature	
Tg [°C]	603

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

Temperature coefficient	
T_K [nm/°C]	

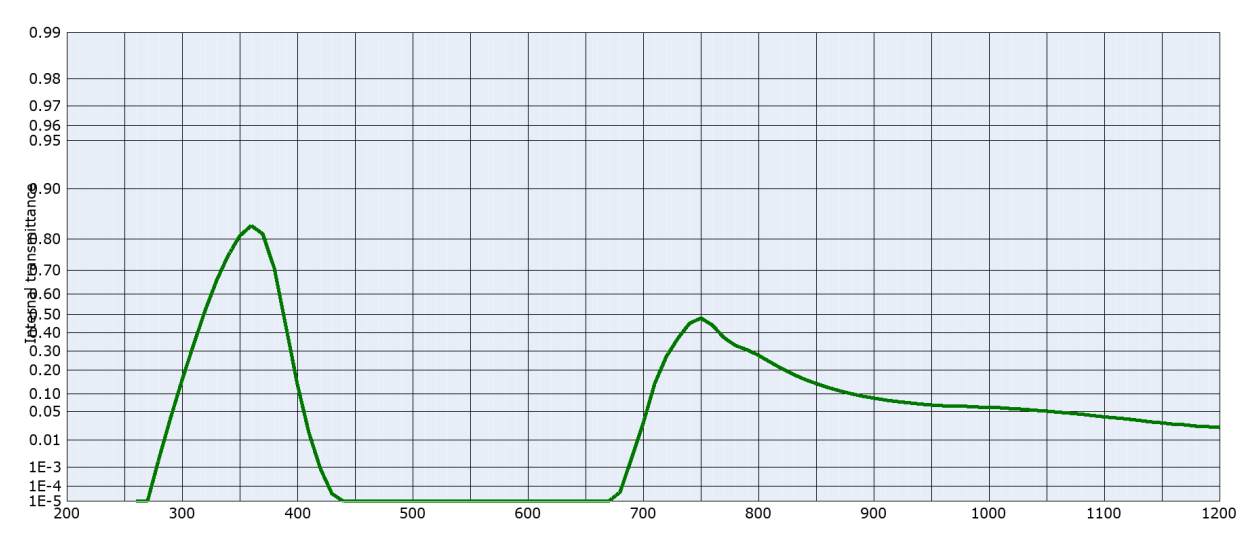
Notes
Ionically colored glass
Bandpass filter
uv
Transmission changes are possible
under the action of intense
ultraviolet radiation.
All data wihout tolerances are to be
understood to be reference values.
Guaranteed values are only those
values listed in the section
"Spectral values guaranteed".

Colorimetric evaluation

Illuminant	A (Planck T = 2856 K)		
d [mm]	1	2	3
x			
y			
Y			
λ_d [nm]			
P_e			

Illuminant	Planck T = 3200 K		
d [mm]	1	2	3
x			
y			
Y			
λ_d [nm]			
P_e			

Illuminant	D65 (T_C = 6504 K)		
d [mm]	1	2	3
x			
y			
Y			
λ_d [nm]			
P_e			



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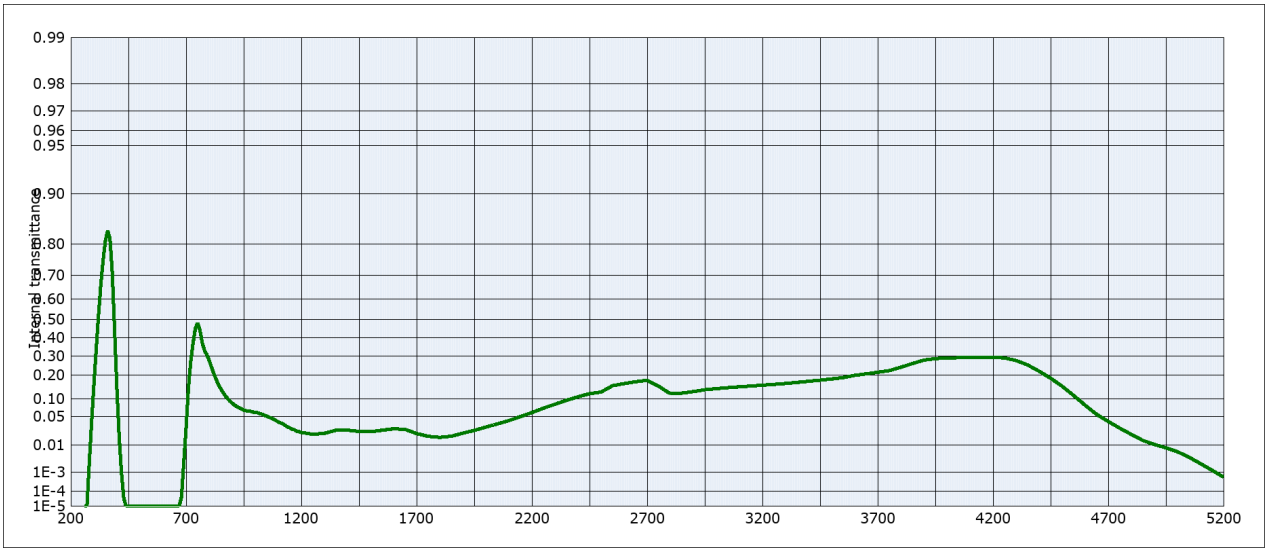

Internal transmittance τ_i at reference thickness d = 1 mm
The internal transmittance values, tabulated and graphically represented, are reference values only

λ [nm]	τ_i	λ [nm]	τ_i	λ [nm]	τ_i	λ [nm]	τ_i	λ [nm]	τ_i	λ [nm]	τ_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	$1.2 \cdot 10^{-3}$

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