Data Sheet

SCHOTT

UG5

Reflection factor	
P_d	0.914

Reference thickness	
d [mm]	1

Spectral values guaranteed		
τ_i (254nm)	≥	0.8
τ_i (308nm)	≥	0.94
τ_i (405nm)	≤	0.5
τ_i (546nm)	≤	0.05
τ_i (633nm)	≤	0.05
τ_i (725nm)	≤	0.85

Refractive Index n
n (253.7 nm) = 1.600
n_i (365.0 nm) = 1.560
n_d (587.6 nm) = 1.540
n_t (1014.0 nm) = 1.530

Density	
ρ [g/cm^3]	2.85

Bubble content	
Bubble class	2

Chemical Resistance	
FR class	0
SR class	3.0
AR class	2.0

Transformation temperature	
Tg [°C]	462

Thermal expansion	
$\alpha_{-30/+70°C}$ [10^{-6}/K]	8.1
$\alpha_{20/300°C}$ [10^{-6}/K]	9.4
$\alpha_{20/200°C}$ [10^{-6}/K]	

Temperature coefficient	
T_K [nm/°C]	

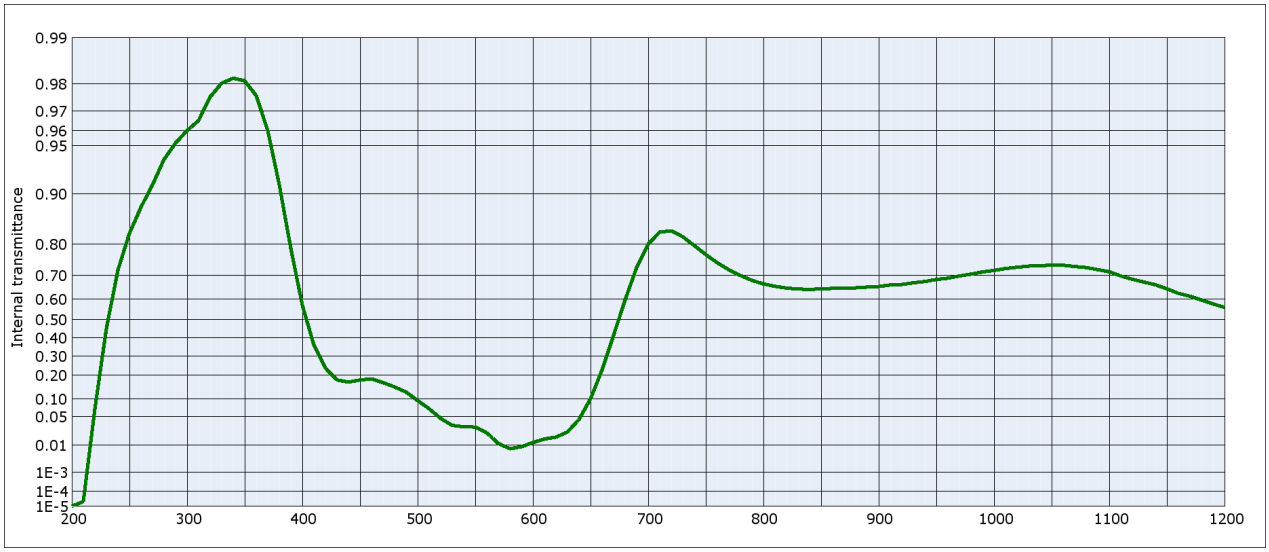
Notes
Ionically colored glass
Bandpass filter
Long-term changes in the polished
surface are possible
Transmission changes are possible
under the action of intense
ultraviolet radiation.
All data wihout tolerances are to be
understood to be reference values.
Guaranteed values are only those
values listed 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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Further explanations see 'Optical Filters 2013' catalogue

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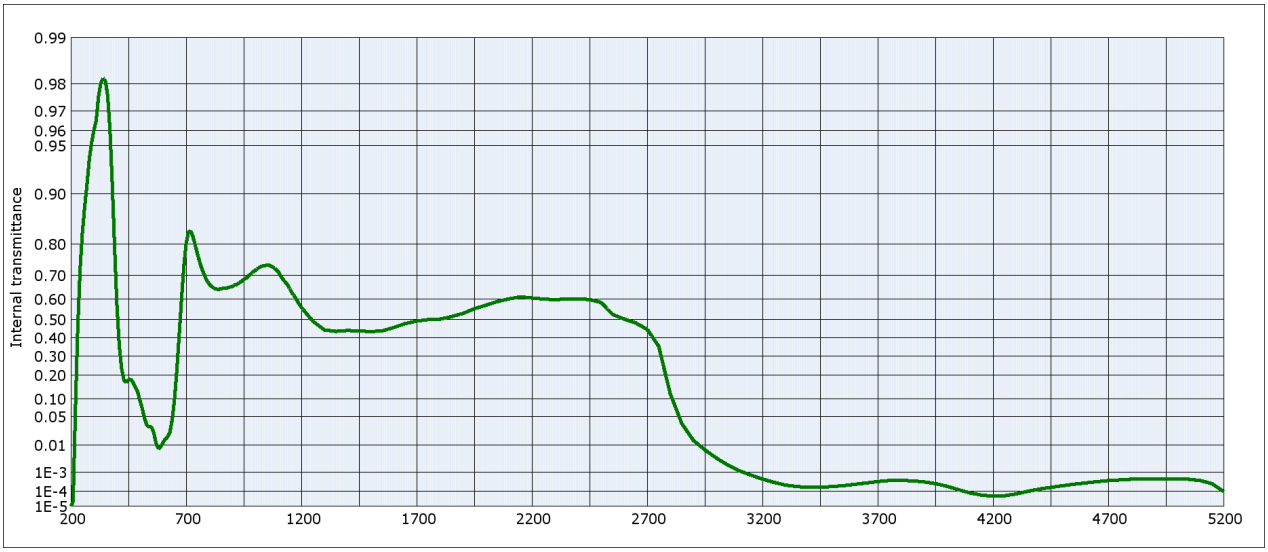

Internal transmittance τ_i at reference thickness d = 1 mm
The internal transmittance values, tabulated and graphically represented, are reference values only

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	$9.5 \cdot 10^{-2}$	800	0.665	1100	0.712	2200	0.604	3700	$3.6 \cdot 10^{-4}$
210	$2.2 \cdot 10^{-5}$	510	$7.0 \cdot 10^{-2}$	810	0.655	1110	0.696	2250	0.599	3750	$4.0 \cdot 10^{-4}$
220	$6.9 \cdot 10^{-2}$	520	$4.6 \cdot 10^{-2}$	820	0.648	1120	0.683	2300	0.596	3800	$4.1 \cdot 10^{-4}$
230	0.450	530	$3.3 \cdot 10^{-2}$	830	0.644	1130	0.673	2350	0.600	3850	$3.9 \cdot 10^{-4}$
240	0.718	540	$3.0 \cdot 10^{-2}$	840	0.642	1140	0.662	2400	0.600	3900	$3.5 \cdot 10^{-4}$
250	0.826	550	$3.0 \cdot 10^{-2}$	850	0.644	1150	0.644	2450	0.597	3950	$2.8 \cdot 10^{-4}$
260	0.879	560	$2.2 \cdot 10^{-2}$	860	0.646	1160	0.625	2500	0.584	4000	$2.0 \cdot 10^{-4}$
270	0.912	570	$1.1 \cdot 10^{-2}$	870	0.648	1170	0.612	2550	0.525	4050	$1.3 \cdot 10^{-4}$
280	0.939	580	$7.8 \cdot 10^{-3}$	880	0.649	1180	0.595	2600	0.501	4100	$8.2 \cdot 10^{-5}$
290	0.952	590	$9.0 \cdot 10^{-3}$	890	0.652	1190	0.576	2650	0.481	4150	$5.9 \cdot 10^{-5}$
300	0.960	600	$1.2 \cdot 10^{-2}$	900	0.654	1200	0.560	2700	0.446	4200	$5.1 \cdot 10^{-5}$
310	0.966	610	$1.5 \cdot 10^{-2}$	910	0.661	1250	0.489	2750	0.353	4250	$5.4 \cdot 10^{-5}$
320	0.976	620	$1.7 \cdot 10^{-2}$	920	0.663	1300	0.443	2800	0.120	4300	$7.0 \cdot 10^{-5}$
330	0.980	630	$2.3 \cdot 10^{-2}$	930	0.669	1350	0.435	2850	$3.6 \cdot 10^{-2}$	4350	$1.0 \cdot 10^{-4}$
340	0.982	640	$4.4 \cdot 10^{-2}$	940	0.675	1400	0.440	2900	$1.4 \cdot 10^{-2}$	4400	$1.4 \cdot 10^{-4}$
350	0.981	650	0.101	950	0.683	1450	0.437	2950	$7.2 \cdot 10^{-3}$	4450	$1.7 \cdot 10^{-4}$
360	0.976	660	0.227	960	0.688	1500	0.434	3000	$3.8 \cdot 10^{-3}$	4500	$2.1 \cdot 10^{-4}$
370	0.960	670	0.414	970	0.696	1550	0.437	3050	$2.0 \cdot 10^{-3}$	4550	$2.6 \cdot 10^{-4}$
380	0.912	680	0.595	980	0.703	1600	0.456	3100	$1.2 \cdot 10^{-3}$	4600	$3.0 \cdot 10^{-4}$
390	0.787	690	0.727	990	0.711	1650	0.477	3150	$7.4 \cdot 10^{-4}$	4650	$3.5 \cdot 10^{-4}$
400	0.570	700	0.799	1000	0.716	1700	0.490	3200	$4.8 \cdot 10^{-4}$	4700	$4.0 \cdot 10^{-4}$
410	0.360	710	0.829	1010	0.723	1750	0.498	3250	$3.2 \cdot 10^{-4}$	4750	$4.3 \cdot 10^{-4}$
420	0.236	720	0.832	1020	0.728	1800	0.500	3300	$2.3 \cdot 10^{-4}$	4800	$4.7 \cdot 10^{-4}$
430	0.178	730	0.818	1030	0.732	1850	0.513	3350	$1.9 \cdot 10^{-4}$	4850	$4.9 \cdot 10^{-4}$
440	0.168	740	0.795	1040	0.734	1900	0.529	3400	$1.8 \cdot 10^{-4}$	4900	$5.0 \cdot 10^{-4}$
450	0.178	750	0.769	1050	0.734	1950	0.553	3450	$1.8 \cdot 10^{-4}$	4950	$5.0 \cdot 10^{-4}$
460	0.183	760	0.743	1060	0.735	2000	0.570	3500	$1.9 \cdot 10^{-4}$	5000	$5.0 \cdot 10^{-4}$
470	0.166	770	0.719	1070	0.731	2050	0.587	3550	$2.1 \cdot 10^{-4}$	5050	$4.6 \cdot 10^{-4}$
480	0.147	780	0.698	1080	0.727	2100	0.600	3600	$2.5 \cdot 10^{-4}$	5100	$4.0 \cdot 10^{-4}$
490	0.126	790	0.679	1090	0.719	2150	0.609	3650	$3.0 \cdot 10^{-4}$	5150	$2.7 \cdot 10^{-4}$

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