Data Sheet

SCHOTT

RG715

Reflection factor	
P_d	0.000

Reference thickness	
d [mm]	3

Spectral values guaranteed		
λ_c (τ_i = 0.5) [nm]	=	715 ± 9
λ_s ($\tau_{i,U}$ = 10^{-5}) [nm]	=	620
λ_p ($\tau_{i,L}$ = 0.96) [nm]	=	810

Refractive Index n
n_e (546.1 nm) = 1.540
n_s (852.1 nm) = 1.530
n_t (1014.0 nm) = 1.520

Density	
ρ [g/cm^3]	2.76

Bubble content	
Bubble class	3

Chemical Resistance	
FR class	0
SR class	1.0
AR class	1.0

Transformation temperature	
Tg [°C]	532

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]	0.18

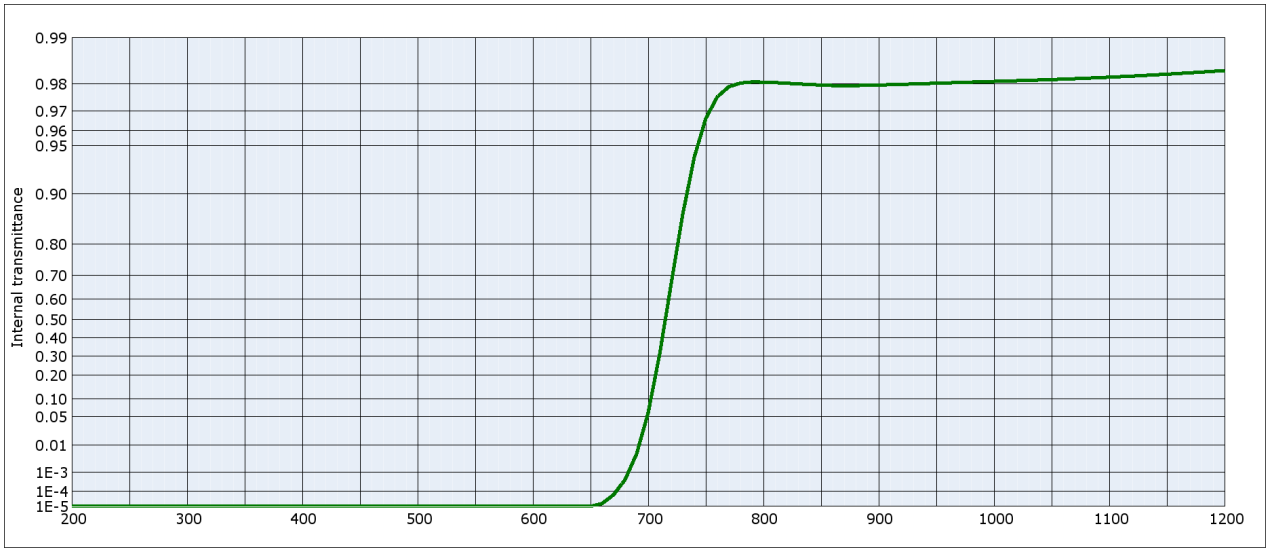
Notes
Colloidally colored glass
Longpass filter
All data wihout tolerances are to be understood to be reference values. Guaranteed values are only those values listed in the section "Spectral values guaranteed".

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			



STATUS: 01.12.2014

Further explanations see 'Optical Filters 2013' catalogue

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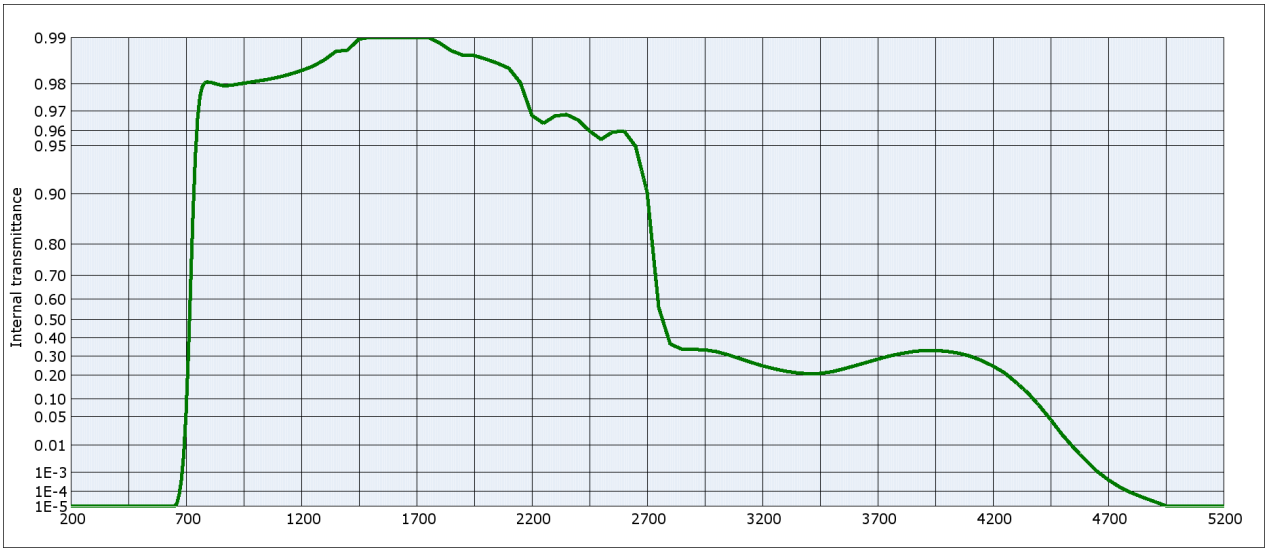

Internal transmittance τ_i at reference thickness d = 3 mm
The internal transmittance values, tabulated and graphically represented, are reference values only

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	0.980	1100	0.982	2200	0.968	3700	0.283
210	$< 10^{-5}$	510	$< 10^{-5}$	810	0.980	1110	0.982	2250	0.964	3750	0.300
220	$< 10^{-5}$	520	$< 10^{-5}$	820	0.980	1120	0.982	2300	0.968	3800	0.313
230	$< 10^{-5}$	530	$< 10^{-5}$	830	0.980	1130	0.982	2350	0.968	3850	0.323
240	$< 10^{-5}$	540	$< 10^{-5}$	840	0.980	1140	0.982	2400	0.966	3900	0.330
250	$< 10^{-5}$	550	$< 10^{-5}$	850	0.980	1150	0.983	2450	0.960	3950	0.330
260	$< 10^{-5}$	560	$< 10^{-5}$	860	0.979	1160	0.983	2500	0.954	4000	0.325
270	$< 10^{-5}$	570	$< 10^{-5}$	870	0.979	1170	0.983	2550	0.959	4050	0.315
280	$< 10^{-5}$	580	$< 10^{-5}$	880	0.979	1180	0.983	2600	0.960	4100	0.299
290	$< 10^{-5}$	590	$< 10^{-5}$	890	0.980	1190	0.983	2650	0.949	4150	0.276
300	$< 10^{-5}$	600	$< 10^{-5}$	900	0.980	1200	0.984	2700	0.902	4200	0.246
310	$< 10^{-5}$	610	$< 10^{-5}$	910	0.980	1250	0.985	2750	0.560	4250	0.212
320	$< 10^{-5}$	620	$< 10^{-5}$	920	0.980	1300	0.986	2800	0.365	4300	0.167
330	$< 10^{-5}$	630	$< 10^{-5}$	930	0.980	1350	0.988	2850	0.338	4350	0.124
340	$< 10^{-5}$	640	$< 10^{-5}$	940	0.980	1400	0.988	2900	0.336	4400	$8.0 \cdot 10^{-2}$
350	$< 10^{-5}$	650	$< 10^{-5}$	950	0.980	1450	0.990	2950	0.334	4450	$4.4 \cdot 10^{-2}$
360	$< 10^{-5}$	660	$1.6 \cdot 10^{-5}$	960	0.980	1500	0.992	3000	0.324	4500	$2.0 \cdot 10^{-2}$
370	$< 10^{-5}$	670	$6.3 \cdot 10^{-5}$	970	0.980	1550	0.993	3050	0.307	4550	$8.4 \cdot 10^{-3}$
380	$< 10^{-5}$	680	$4.5 \cdot 10^{-4}$	980	0.980	1600	0.993	3100	0.286	4600	$3.3 \cdot 10^{-3}$
390	$< 10^{-5}$	690	$5.4 \cdot 10^{-3}$	990	0.981	1650	0.993	3150	0.266	4650	$1.1 \cdot 10^{-3}$
400	$< 10^{-5}$	700	$5.9 \cdot 10^{-2}$	1000	0.981	1700	0.992	3200	0.248	4700	$4.4 \cdot 10^{-4}$
410	$< 10^{-5}$	710	0.311	1010	0.981	1750	0.990	3250	0.233	4750	$1.8 \cdot 10^{-4}$
420	$< 10^{-5}$	720	0.666	1020	0.981	1800	0.989	3300	0.220	4800	$8.3 \cdot 10^{-5}$
430	$< 10^{-5}$	730	0.866	1030	0.981	1850	0.988	3350	0.212	4850	$4.2 \cdot 10^{-5}$
440	$< 10^{-5}$	740	0.941	1040	0.981	1900	0.987	3400	0.207	4900	$2.2 \cdot 10^{-5}$
450	$< 10^{-5}$	750	0.967	1050	0.981	1950	0.987	3450	0.209	4950	$1.1 \cdot 10^{-5}$
460	$< 10^{-5}$	760	0.976	1060	0.981	2000	0.986	3500	0.217	5000	$< 10^{-5}$
470	$< 10^{-5}$	770	0.979	1070	0.981	2050	0.985	3550	0.231	5050	$< 10^{-5}$
480	$< 10^{-5}$	780	0.980	1080	0.982	2100	0.984	3600	0.248	5100	$< 10^{-5}$
490	$< 10^{-5}$	790	0.981	1090	0.982	2150	0.980	3650	0.265	5150	$< 10^{-5}$

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