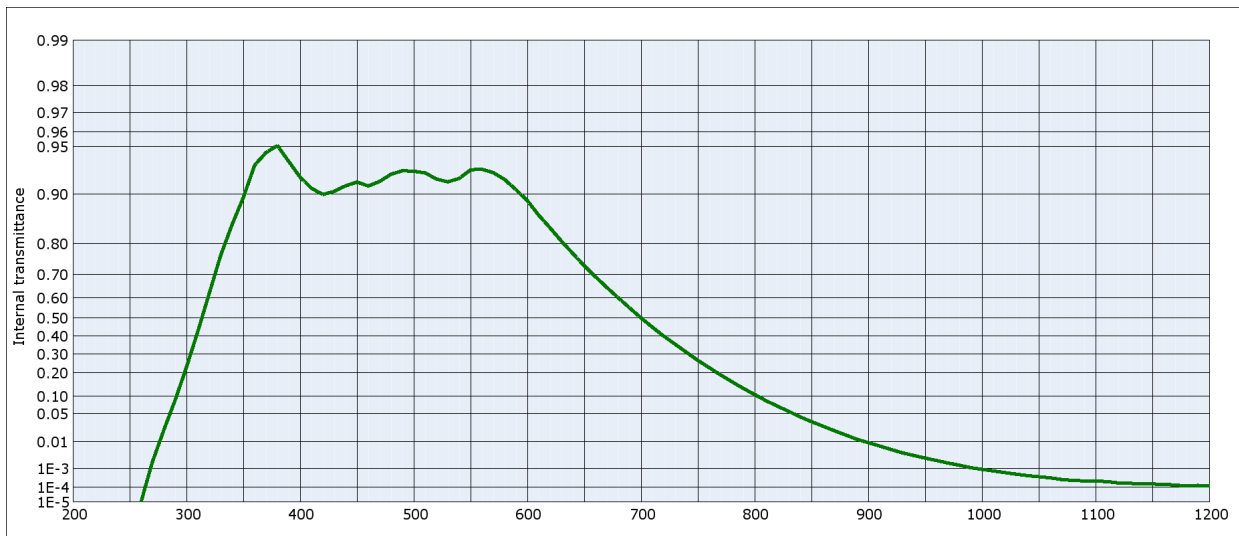


DATA SHEET

Heat Absorbing Filters SCHOTT KG3

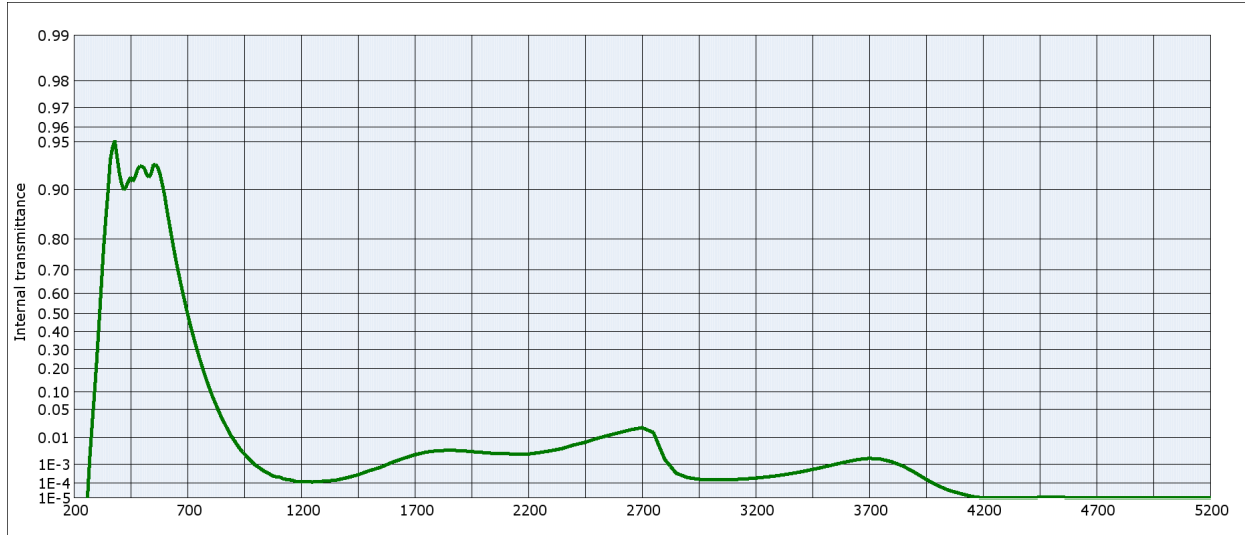
KG3		Density		Notes	
		ρ [g/cm ³]	2.52	Ionically colored glass	
Reflection factor		Bubble content		Shortpass filter	
P_d	0.920	Bubble class	3	Heat protection filter	
Reference thickness		Chemical Resistance			
d [mm]	2	FR class	0		
		SR class	2.0		
		AR class	4.0		
Spectral values guaranteed		Transformation temperature			
τ_i (365nm)	≥ 0.86	T_g [°C]	581		
τ_i (500nm)	≥ 0.88	Thermal expansion			
τ_i (600nm)	≥ 0.83	$\alpha_{-30/+70^\circ\text{C}}$ [10 ⁻⁶ /K]	5.3		
τ_i (700nm)	≤ 0.55	$\alpha_{20/300^\circ\text{C}}$ [10 ⁻⁶ /K]	6.1		
τ_i (800nm)	≤ 0.14	$\alpha_{20/200^\circ\text{C}}$ [10 ⁻⁶ /K]			
τ_i (900nm)	≤ 0.03	Temperature coefficient			
τ_i (1060nm)	≤ 0.001	T_K [nm/°C]			
τ_i (2200nm)	≤ 0.01				
Refractive Index n					
n_h (404.7 nm) = 1.529					
n_e (546.1 nm) = 1.518					
n_d (587.6 nm) = 1.516					
n_t (1014.0 nm) = 1.507					
Sellmeier coefficients on request					
				Long-term changes of the polished surface are possible under some circumstances.	
				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 _c = 6504 K)		
d [mm]	1	2	3	d [mm]	1	2	3	d [mm]	1	2	3
x	0.442	0.437	0.432	x	0.418	0.413	0.409	x	0.309	0.306	0.303
y	0.410	0.413	0.416	y	0.401	0.404	0.406	y	0.330	0.332	0.333
Y	86	81	77	Y	87	82	77	Y	87	82	78
λ_d [nm]	504	505	505	λ_d [nm]	503	503	503	λ_d [nm]	496	496	496
P_e	0.01	0.02	0.04	P_e	0.01	0.02	0.04	P_e	0.01	0.02	0.03



DATA SHEET

Heat Absorbing Filters SCHOTT KG3



Internal transmittance τ_i at reference thickness $d = 2$ 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	0.928	800	0.107	1100	$2.3 \cdot 10^{-4}$	2200	$2.7 \cdot 10^{-3}$	3700	$1.8 \cdot 10^{-3}$
210	$< 10^{-5}$	510	0.926	810	$8.5 \cdot 10^{-2}$	1110	$2.2 \cdot 10^{-4}$	2250	$3.1 \cdot 10^{-3}$	3750	$1.7 \cdot 10^{-3}$
220	$< 10^{-5}$	520	0.919	820	$6.9 \cdot 10^{-2}$	1120	$1.8 \cdot 10^{-4}$	2300	$3.6 \cdot 10^{-3}$	3800	$1.3 \cdot 10^{-3}$
230	$< 10^{-5}$	530	0.916	830	$5.5 \cdot 10^{-2}$	1130	$1.7 \cdot 10^{-4}$	2350	$4.4 \cdot 10^{-3}$	3850	$8.1 \cdot 10^{-4}$
240	$< 10^{-5}$	540	0.920	840	$4.3 \cdot 10^{-2}$	1140	$1.6 \cdot 10^{-4}$	2400	$5.8 \cdot 10^{-3}$	3900	$4.1 \cdot 10^{-4}$
250	$< 10^{-5}$	550	0.930	850	$3.4 \cdot 10^{-2}$	1150	$1.6 \cdot 10^{-4}$	2450	$7.1 \cdot 10^{-3}$	3950	$1.7 \cdot 10^{-4}$
260	$< 10^{-5}$	560	0.930	860	$2.7 \cdot 10^{-2}$	1160	$1.5 \cdot 10^{-4}$	2500	$9.4 \cdot 10^{-3}$	4000	$7.2 \cdot 10^{-5}$
270	$1.9 \cdot 10^{-3}$	570	0.927	870	$2.1 \cdot 10^{-2}$	1170	$1.4 \cdot 10^{-4}$	2550	$1.2 \cdot 10^{-2}$	4050	$3.5 \cdot 10^{-5}$
280	$2.1 \cdot 10^{-2}$	580	0.919	880	$1.6 \cdot 10^{-2}$	1180	$1.2 \cdot 10^{-4}$	2600	$1.4 \cdot 10^{-2}$	4100	$2.1 \cdot 10^{-5}$
290	$8.7 \cdot 10^{-2}$	590	0.906	890	$1.2 \cdot 10^{-2}$	1190	$1.3 \cdot 10^{-4}$	2650	$1.7 \cdot 10^{-2}$	4150	$1.3 \cdot 10^{-5}$
300	0.229	600	0.890	900	$9.5 \cdot 10^{-3}$	1200	$1.2 \cdot 10^{-4}$	2700	$1.9 \cdot 10^{-2}$	4200	$< 10^{-5}$
310	0.426	610	0.864	910	$7.4 \cdot 10^{-3}$	1250	$1.2 \cdot 10^{-4}$	2750	$1.4 \cdot 10^{-2}$	4250	$< 10^{-5}$
320	0.618	620	0.838	920	$5.7 \cdot 10^{-3}$	1300	$1.3 \cdot 10^{-4}$	2800	$1.6 \cdot 10^{-3}$	4300	$< 10^{-5}$
330	0.763	630	0.805	930	$4.3 \cdot 10^{-3}$	1350	$1.5 \cdot 10^{-4}$	2850	$3.7 \cdot 10^{-4}$	4350	$< 10^{-5}$
340	0.845	640	0.770	940	$3.5 \cdot 10^{-3}$	1400	$2.1 \cdot 10^{-4}$	2900	$2.1 \cdot 10^{-4}$	4400	$1.0 \cdot 10^{-5}$
350	0.895	650	0.730	950	$2.7 \cdot 10^{-3}$	1450	$3.0 \cdot 10^{-4}$	2950	$1.7 \cdot 10^{-4}$	4450	$1.1 \cdot 10^{-5}$
360	0.934	660	0.689	960	$2.2 \cdot 10^{-3}$	1500	$5.0 \cdot 10^{-4}$	3000	$1.6 \cdot 10^{-4}$	4500	$1.1 \cdot 10^{-5}$
370	0.946	670	0.645	970	$1.7 \cdot 10^{-3}$	1550	$7.2 \cdot 10^{-4}$	3050	$1.6 \cdot 10^{-4}$	4550	$1.1 \cdot 10^{-5}$
380	0.951	680	0.599	980	$1.4 \cdot 10^{-3}$	1600	$1.2 \cdot 10^{-3}$	3100	$1.6 \cdot 10^{-4}$	4600	$1.0 \cdot 10^{-5}$
390	0.938	690	0.550	990	$1.1 \cdot 10^{-3}$	1650	$1.8 \cdot 10^{-3}$	3150	$1.8 \cdot 10^{-4}$	4650	$< 10^{-5}$
400	0.922	700	0.498	1000	$9.1 \cdot 10^{-4}$	1700	$2.5 \cdot 10^{-3}$	3200	$2.0 \cdot 10^{-4}$	4700	$< 10^{-5}$
410	0.908	710	0.448	1010	$7.7 \cdot 10^{-4}$	1750	$3.2 \cdot 10^{-3}$	3250	$2.3 \cdot 10^{-4}$	4750	$< 10^{-5}$
420	0.899	720	0.399	1020	$6.4 \cdot 10^{-4}$	1800	$3.7 \cdot 10^{-3}$	3300	$2.8 \cdot 10^{-4}$	4800	$< 10^{-5}$
430	0.904	730	0.354	1030	$5.4 \cdot 10^{-4}$	1850	$3.8 \cdot 10^{-3}$	3350	$3.4 \cdot 10^{-4}$	4850	$< 10^{-5}$
440	0.911	740	0.308	1040	$4.5 \cdot 10^{-4}$	1900	$3.7 \cdot 10^{-3}$	3400	$4.4 \cdot 10^{-4}$	4900	$< 10^{-5}$
450	0.916	750	0.265	1050	$4.0 \cdot 10^{-4}$	1950	$3.4 \cdot 10^{-3}$	3450	$5.7 \cdot 10^{-4}$	4950	$< 10^{-5}$
460	0.911	760	0.226	1060	$3.5 \cdot 10^{-4}$	2000	$3.1 \cdot 10^{-3}$	3500	$7.5 \cdot 10^{-4}$	5000	$< 10^{-5}$
470	0.917	770	0.190	1070	$2.8 \cdot 10^{-4}$	2050	$2.9 \cdot 10^{-3}$	3550	$1.0 \cdot 10^{-3}$	5050	$< 10^{-5}$
480	0.925	780	0.158	1080	$2.5 \cdot 10^{-4}$	2100	$2.8 \cdot 10^{-3}$	3600	$1.3 \cdot 10^{-3}$	5100	$< 10^{-5}$
490	0.929	790	0.130	1090	$2.4 \cdot 10^{-4}$	2150	$2.8 \cdot 10^{-3}$	3650	$1.6 \cdot 10^{-3}$	5150	$< 10^{-5}$