

25mm diameter SCHOTT RG610 LONGPASS FILTER

<https://www.galvooptics.co.uk/optical-components/optical-filters/schott-longpass-filters/>

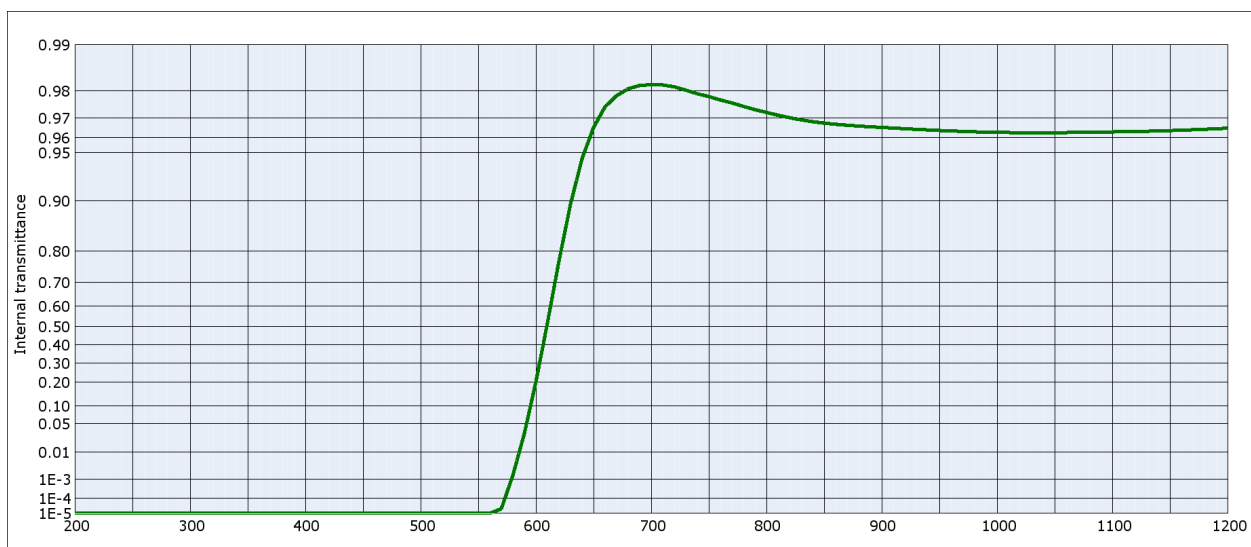
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Data Sheet

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RG610		Density		Notes	
		ρ [g/cm ³]	2.65	Colloidally colored glass	
Reflection factor		Bubble content		Longpass filter	
P_d	0.918	Bubble class	3		
Reference thickness		Chemical Resistance			
d [mm]	3	FR class	0		
Spectral values guaranteed		SR class	1.0		
λ_c ($\tau_i = 0.5$) [nm]	= 610 \pm 6	AR class	1.0		
λ_s ($\tau_{i,U} = 10^{-5}$) [nm]	= 530	Transformation temperature			
λ_p ($\tau_{i,L} = 0.94$) [nm]	= 690	Tg [°C]	520		
		Thermal expansion			
		$\alpha_{30/+70^\circ\text{C}}$ [10 ⁻⁶ /K]	8.0		
		$\alpha_{20/300^\circ\text{C}}$ [10 ⁻⁶ /K]	9.2		
		$\alpha_{20/200^\circ\text{C}}$ [10 ⁻⁶ /K]			
Refractive Index n		Temperature coefficient			
n_d (587.6 nm) = 1.520		T_K [nm/°C]	0.14		
n_s (852.1 nm) = 1.520					
n_t (1014.0 nm) = 1.510					
				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	0.663	0.690	0.697	x	0.659	0.689	0.696	x	0.629	0.684	0.693
y	0.328	0.310	0.303	y	0.329	0.311	0.304	y	0.330	0.315	0.307
Y	27	20	17	Y	25	18	15	Y	17	12	10
λ_d [nm]	614	619	623	λ_d [nm]	613	619	623	λ_d [nm]	611	617	621
P_e	0.94	1.00	1.00	P_e	0.93	1.00	1.00	P_e	0.89	1.00	1.00



STATUS: 01.12.2014

Further explanations see 'Optical Filters 2013' catalogue

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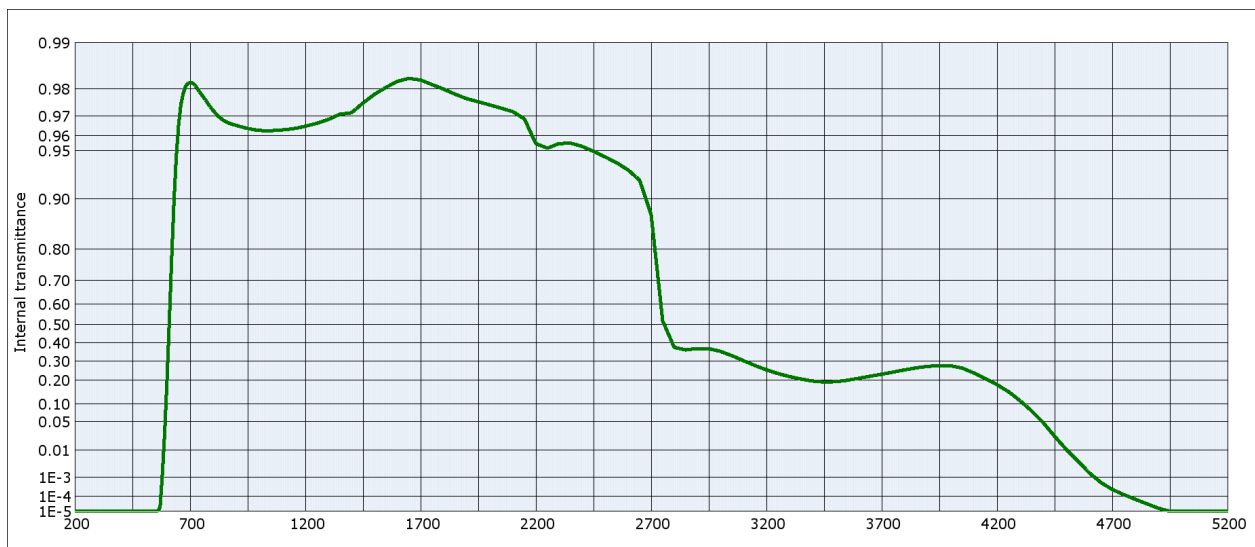
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Internal transmittance τ_i at reference thickness $d = 3 \text{ mm}$
The internal transmittance values, tabulated and graphically represented, are reference values only

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	0.972	1100	0.963	2200	0.955	3700	0.230
210	$< 10^{-5}$	510	$< 10^{-5}$	810	0.971	1110	0.963	2250	0.952	3750	0.241
220	$< 10^{-5}$	520	$< 10^{-5}$	820	0.970	1120	0.963	2300	0.955	3800	0.253
230	$< 10^{-5}$	530	$< 10^{-5}$	830	0.969	1130	0.964	2350	0.955	3850	0.263
240	$< 10^{-5}$	540	$< 10^{-5}$	840	0.968	1140	0.964	2400	0.953	3900	0.271
250	$< 10^{-5}$	550	$< 10^{-5}$	850	0.968	1150	0.964	2450	0.950	3950	0.276
260	$< 10^{-5}$	560	$< 10^{-5}$	860	0.967	1160	0.964	2500	0.945	4000	0.274
270	$< 10^{-5}$	570	$2.1 \cdot 10^{-5}$	870	0.967	1170	0.964	2550	0.941	4050	0.261
280	$< 10^{-5}$	580	$1.5 \cdot 10^{-3}$	880	0.966	1180	0.965	2600	0.934	4100	0.236
290	$< 10^{-5}$	590	$3.1 \cdot 10^{-2}$	890	0.966	1190	0.965	2650	0.923	4150	0.208
300	$< 10^{-5}$	600	0.202	900	0.966	1200	0.965	2700	0.875	4200	0.179
310	$< 10^{-5}$	610	0.516	910	0.965	1250	0.967	2750	0.517	4250	0.148
320	$< 10^{-5}$	620	0.770	920	0.965	1300	0.968	2800	0.375	4300	0.112
330	$< 10^{-5}$	630	0.895	930	0.965	1350	0.971	2850	0.361	4350	$7.8 \cdot 10^{-2}$
340	$< 10^{-5}$	640	0.945	940	0.964	1400	0.971	2900	0.368	4400	$4.8 \cdot 10^{-2}$
350	$< 10^{-5}$	650	0.966	950	0.964	1450	0.975	2950	0.367	4450	$2.4 \cdot 10^{-2}$
360	$< 10^{-5}$	660	0.975	960	0.964	1500	0.978	3000	0.353	4500	$1.1 \cdot 10^{-2}$
370	$< 10^{-5}$	670	0.978	970	0.964	1550	0.980	3050	0.329	4550	$4.5 \cdot 10^{-3}$
380	$< 10^{-5}$	680	0.981	980	0.963	1600	0.982	3100	0.302	4600	$1.6 \cdot 10^{-3}$
390	$< 10^{-5}$	690	0.982	990	0.963	1650	0.983	3150	0.275	4650	$5.7 \cdot 10^{-4}$
400	$< 10^{-5}$	700	0.982	1000	0.963	1700	0.982	3200	0.253	4700	$2.5 \cdot 10^{-4}$
410	$< 10^{-5}$	710	0.982	1010	0.963	1750	0.981	3250	0.233	4750	$1.3 \cdot 10^{-4}$
420	$< 10^{-5}$	720	0.981	1020	0.963	1800	0.980	3300	0.218	4800	$6.7 \cdot 10^{-5}$
430	$< 10^{-5}$	730	0.980	1030	0.963	1850	0.978	3350	0.206	4850	$3.4 \cdot 10^{-5}$
440	$< 10^{-5}$	740	0.979	1040	0.963	1900	0.977	3400	0.196	4900	$1.7 \cdot 10^{-5}$
450	$< 10^{-5}$	750	0.978	1050	0.963	1950	0.976	3450	0.192	4950	$< 10^{-5}$
460	$< 10^{-5}$	760	0.977	1060	0.963	2000	0.975	3500	0.193	5000	$< 10^{-5}$
470	$< 10^{-5}$	770	0.976	1070	0.963	2050	0.973	3550	0.200	5050	$< 10^{-5}$
480	$< 10^{-5}$	780	0.975	1080	0.963	2100	0.972	3600	0.210	5100	$< 10^{-5}$
490	$< 10^{-5}$	790	0.974	1090	0.963	2150	0.969	3650	0.220	5150	$< 10^{-5}$