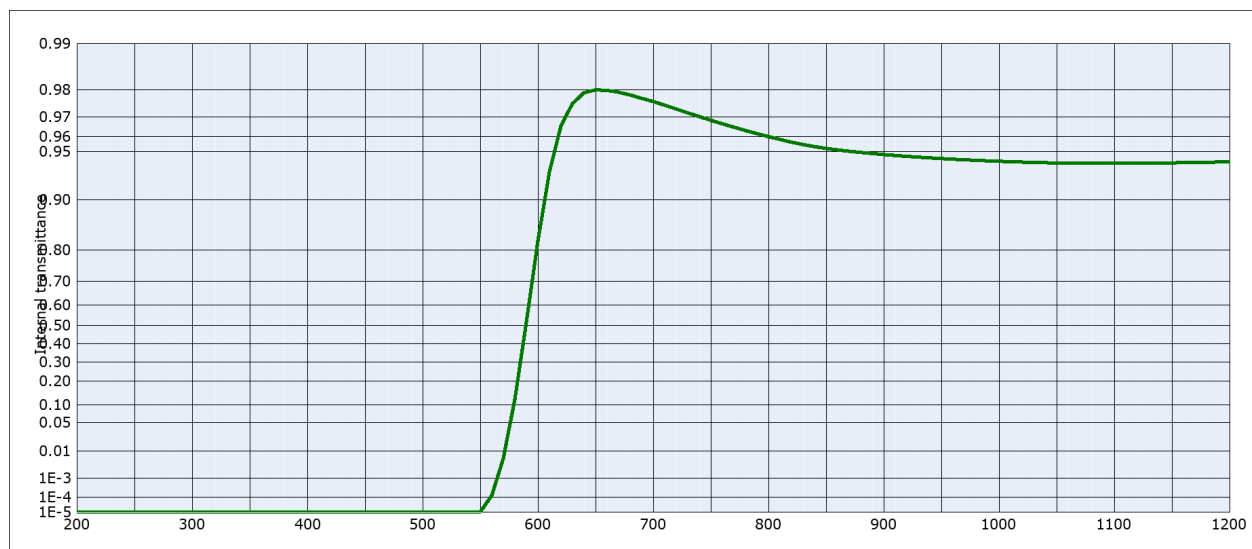


DATA SHEET
SCHOTT OG590

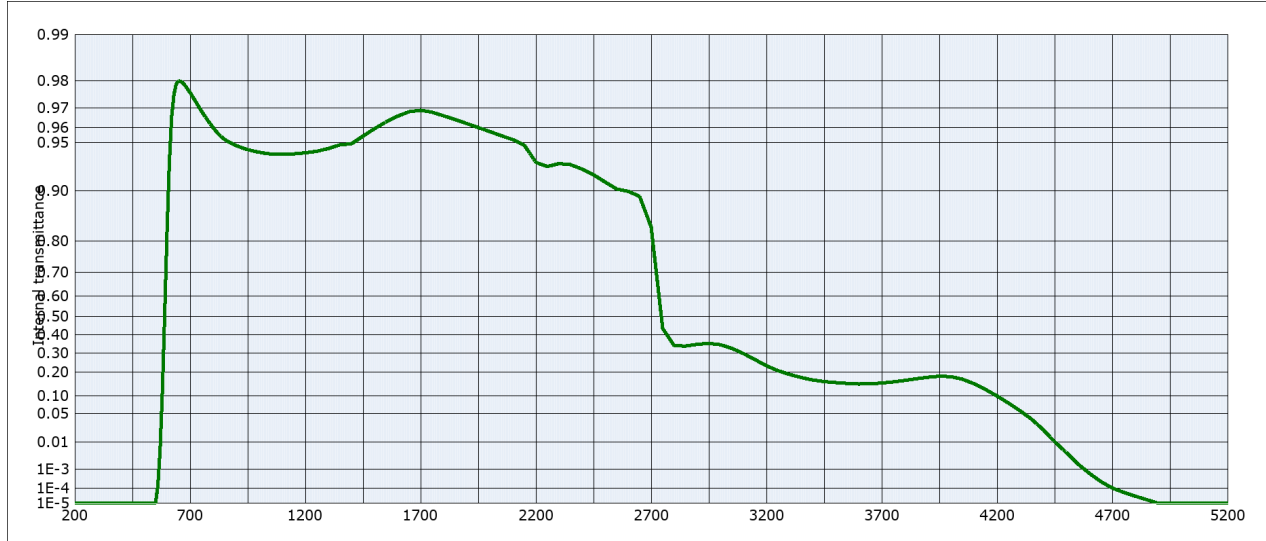
OG590		Density		Notes	
		ρ [g/cm ³]	2.56		
Reflection factor		Bubble content		Colloidally colored glass Longpass filter All data without tolerances are to be understood to be reference values. Guaranteed values are only those values listed in the section "Spectral values guaranteed".	
P_d	0.921	Bubble 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] =	590 \pm 6	AR class	1.0		
λ_s ($\tau_{i,U} = 0.00001$) [nm] =	510	Transformation temperature			
λ_p ($\tau_{i,L} = 0.93$) [nm] =	660	Tg [°C]	506		
		Thermal expansion			
		$\alpha_{-30/+70^\circ\text{C}}$ [10 ⁻⁶ /K]	7.9		
		$\alpha_{20/300^\circ\text{C}}$ [10 ⁻⁶ /K]	9.0		
		$\alpha_{20/200^\circ\text{C}}$ [10 ⁻⁶ /K]			
Refractive Index n		Temperature coefficient			
n_d (587.6 nm) =	1.510	T _K [nm/°C]	0.13		
n_s (852.1 nm) =	1.510				
n_t (1014.0 nm) =	1.500				

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		0.639	0.662	0.669	x		0.635	0.660	0.667	x		0.610	0.652	0.661
y		0.354	0.338	0.331	y		0.356	0.340	0.332	y		0.361	0.347	0.338
Y		39	33	30	Y		37	31	28	Y		27	22	19
λ_d [nm]		605	609	611	λ_d [nm]		604	608	611	λ_d [nm]		602	606	609
P_e		0.96	1.00	1.00	P_e		0.95	1.00	1.00	P_e		0.92	1.00	1.00



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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	0.960	1100	0.941	2200	0.933	3700	0.151
210	$< 10^{-5}$	510	$< 10^{-5}$	810	0.958	1110	0.941	2250	0.929	3750	0.156
220	$< 10^{-5}$	520	$< 10^{-5}$	820	0.957	1120	0.941	2300	0.932	3800	0.162
230	$< 10^{-5}$	530	$< 10^{-5}$	830	0.955	1130	0.941	2350	0.931	3850	0.170
240	$< 10^{-5}$	540	$< 10^{-5}$	840	0.954	1140	0.941	2400	0.927	3900	0.176
250	$< 10^{-5}$	550	$1.1 \cdot 10^{-5}$	850	0.952	1150	0.941	2450	0.921	3950	0.181
260	$< 10^{-5}$	560	$1.3 \cdot 10^{-4}$	860	0.951	1160	0.941	2500	0.912	4000	0.179
270	$< 10^{-5}$	570	$5.9 \cdot 10^{-3}$	870	0.950	1170	0.942	2550	0.902	4050	0.168
280	$< 10^{-5}$	580	0.121	880	0.950	1180	0.942	2600	0.899	4100	0.148
290	$< 10^{-5}$	590	0.515	890	0.949	1190	0.942	2650	0.892	4150	0.125
300	$< 10^{-5}$	600	0.823	900	0.948	1200	0.942	2700	0.834	4200	0.101
310	$< 10^{-5}$	610	0.933	910	0.947	1250	0.943	2750	0.434	4250	$7.7 \cdot 10^{-2}$
320	$< 10^{-5}$	620	0.966	920	0.947	1300	0.946	2800	0.339	4300	$5.7 \cdot 10^{-2}$
330	$< 10^{-5}$	630	0.975	930	0.946	1350	0.949	2850	0.338	4350	$3.9 \cdot 10^{-2}$
340	$< 10^{-5}$	640	0.979	940	0.945	1400	0.949	2900	0.347	4400	$2.2 \cdot 10^{-2}$
350	$< 10^{-5}$	650	0.980	950	0.945	1450	0.955	2950	0.352	4450	$1.0 \cdot 10^{-2}$
360	$< 10^{-5}$	660	0.980	960	0.944	1500	0.959	3000	0.345	4500	$4.7 \cdot 10^{-3}$
370	$< 10^{-5}$	670	0.979	970	0.944	1550	0.963	3050	0.325	4550	$1.7 \cdot 10^{-3}$
380	$< 10^{-5}$	680	0.978	980	0.943	1600	0.966	3100	0.297	4600	$6.6 \cdot 10^{-4}$
390	$< 10^{-5}$	690	0.977	990	0.943	1650	0.968	3150	0.265	4650	$2.5 \cdot 10^{-4}$
400	$< 10^{-5}$	700	0.976	1000	0.943	1700	0.969	3200	0.232	4700	$1.1 \cdot 10^{-4}$
410	$< 10^{-5}$	710	0.975	1010	0.942	1750	0.968	3250	0.208	4750	$5.7 \cdot 10^{-5}$
420	$< 10^{-5}$	720	0.973	1020	0.942	1800	0.966	3300	0.190	4800	$3.2 \cdot 10^{-5}$
430	$< 10^{-5}$	730	0.972	1030	0.942	1850	0.964	3350	0.176	4850	$1.8 \cdot 10^{-5}$
440	$< 10^{-5}$	740	0.970	1040	0.941	1900	0.962	3400	0.164	4900	$< 10^{-5}$
450	$< 10^{-5}$	750	0.969	1050	0.941	1950	0.960	3450	0.157	4950	$< 10^{-5}$
460	$< 10^{-5}$	760	0.967	1060	0.941	2000	0.958	3500	0.153	5000	$< 10^{-5}$
470	$< 10^{-5}$	770	0.965	1070	0.941	2050	0.955	3550	0.149	5050	$< 10^{-5}$
480	$< 10^{-5}$	780	0.963	1080	0.941	2100	0.952	3600	0.147	5100	$< 10^{-5}$
490	$< 10^{-5}$	790	0.962	1090	0.941	2150	0.948	3650	0.148	5150	$< 10^{-5}$