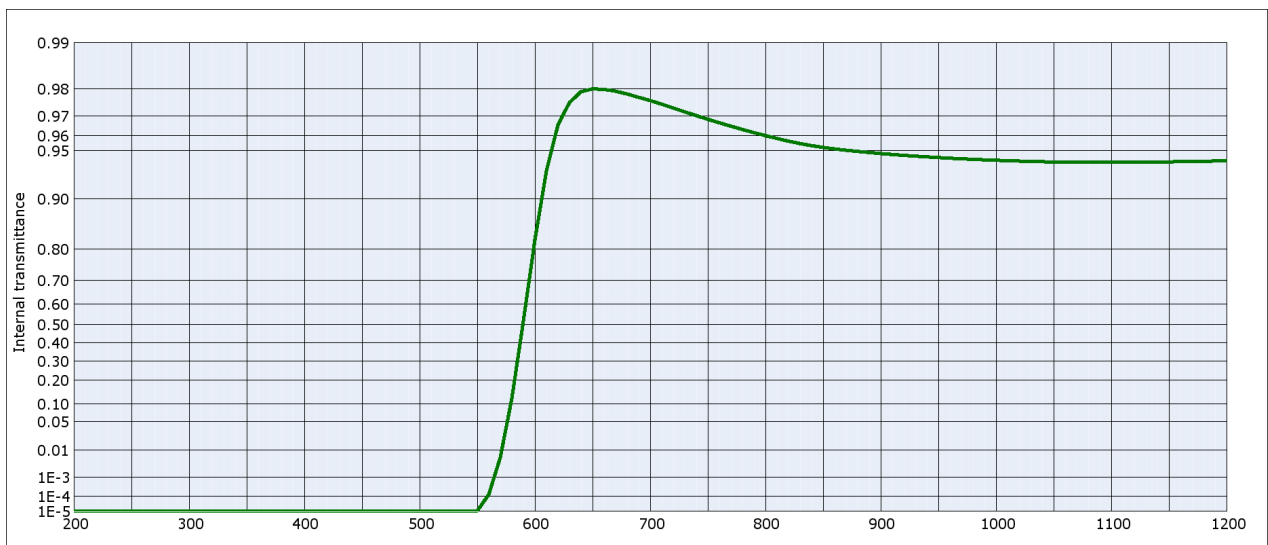


# Data Sheet

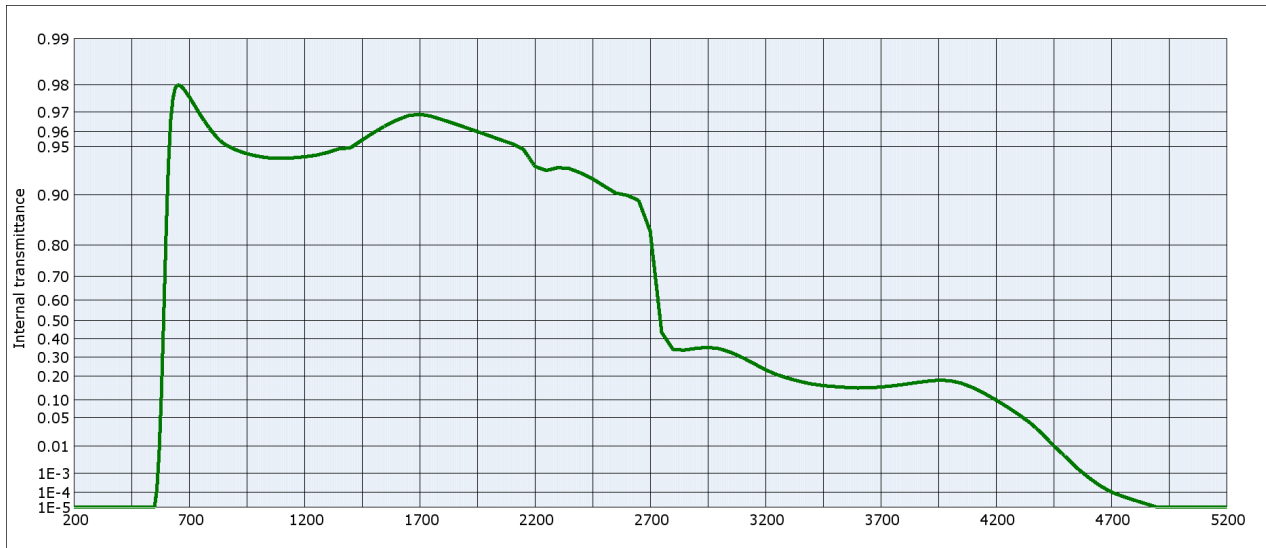


<b>OG590</b>		<b>Density</b>		<b>Notes</b>	
		$\rho$ [g/cm <sup>3</sup> ]	2.56	Colloidally colored glass	
		<b>Bubble content</b>		Longpass filter	
<b>Reflection factor</b>					
P <sub>d</sub>	0.921	Bubble class		3	
<b>Reference thickness</b>		<b>Chemical Resistance</b>			
d [mm]	3	FR class	0		
		SR class	1.0		
		AR class	1.0		
<b>Spectral values guaranteed</b>		<b>Transformation temperature</b>			
$\lambda_c$ ( $\tau_i = 0.5$ ) [nm]	= 590 ± 6	T <sub>g</sub> [°C]	506		
$\lambda_s$ ( $\tau_{i,U} = 10^{-5}$ ) [nm]	= 510	<b>Thermal expansion</b>			
$\lambda_p$ ( $\tau_{i,L} = 0.93$ ) [nm]	= 660	$\alpha_{30/+70^\circ\text{C}}$ [10 <sup>-6</sup> /K]	7.9		
		$\alpha_{20/300^\circ\text{C}}$ [10 <sup>-6</sup> /K]	9.0		
		$\alpha_{20/200^\circ\text{C}}$ [10 <sup>-6</sup> /K]			
<b>Refractive Index n</b>		<b>Temperature coefficient</b>			
n <sub>d</sub> (587.6 nm)	= 1.510	T <sub>K</sub> [nm/°C]	0.13		
n <sub>s</sub> (852.1 nm)	= 1.510				
n <sub>i</sub> (1014.0 nm)	= 1.500				
				<b>All data without tolerances are to be understood to be reference values.</b>	
				<b>Guaranteed values are only those values listed in the section "Spectral values guaranteed".</b>	

Colorimetric evaluation											
Illuminant A (Planck T = 2856 K)				Illuminant Planck T = 3200 K				Illuminant D65 (T <sub>C</sub> = 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
$\lambda_d$ [nm]	605	609	611	$\lambda_d$ [nm]	604	608	611	$\lambda_d$ [nm]	602	606	609
P <sub>e</sub>	0.96	1.00	1.00	P <sub>e</sub>	0.95	1.00	1.00	P <sub>e</sub>	0.92	1.00	1.00



# OG590



Internal transmittance $\tau_i$ at reference thickness $d = 3 \text{ mm}$ The internal transmittance values, tabulated and graphically represented, are reference values only											
$\lambda$ [nm]	$\tau_i$	$\lambda$ [nm]	$\tau_i$	$\lambda$ [nm]	$\tau_i$	$\lambda$ [nm]	$\tau_i$	$\lambda$ [nm]	$\tau_i$	$\lambda$ [nm]	$\tau_i$
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	$< 10^{-5}$