

Data Sheet



NG1

Reflection factor	
P _d	0.918

Reference thickness	
d [mm]	1

Spectral values guaranteed		
τ_i (546nm)	<	0.0001

Refractive Index n	
n _d (587.6 nm) =	1.520

Density	
ρ [g/cm ³]	2.47

Bubble content	
Bubble class	2

Chemical Resistance	
FR class	1.0
SR class	2.2
AR class	1.0

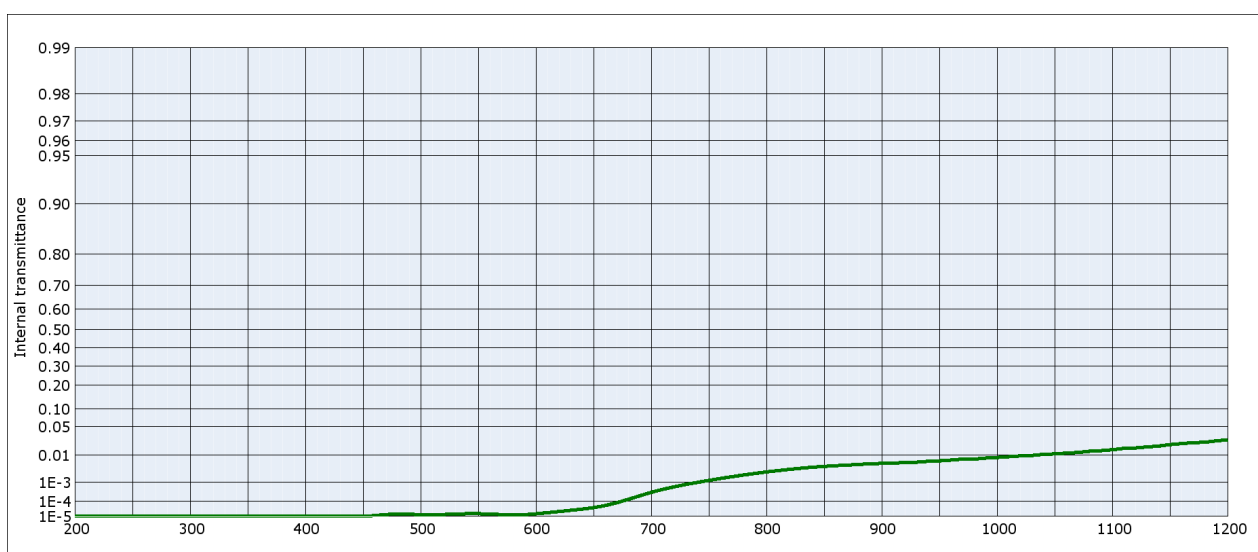
Transformation temperature	
T _g [°C]	471

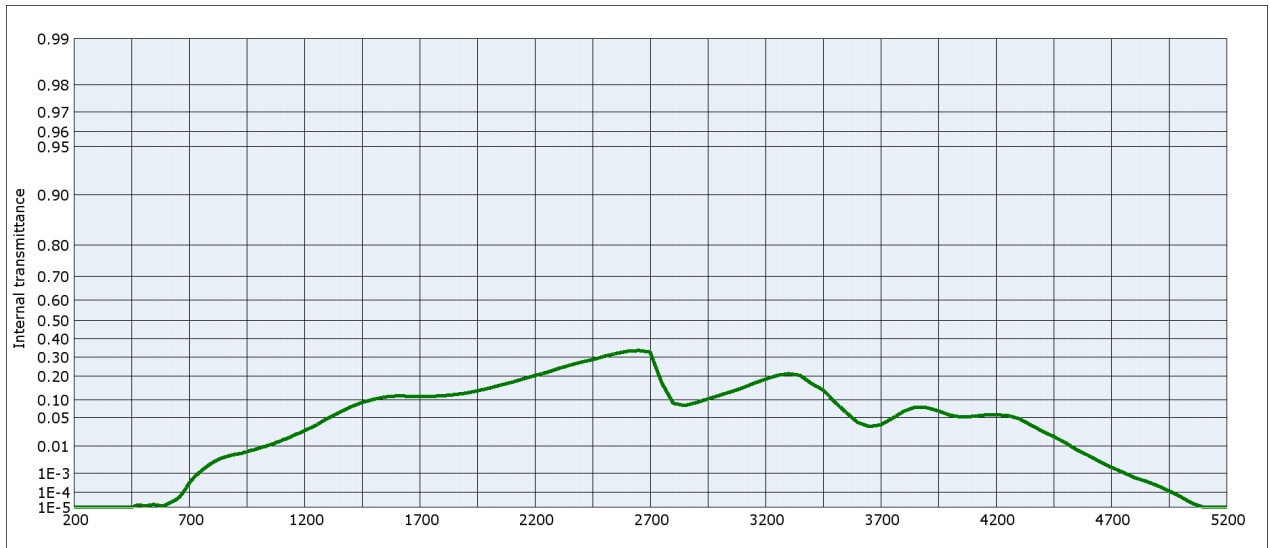
Thermal expansion	
$\alpha_{30/+70^{\circ}\text{C}}$ [10 ⁻⁶ /K]	6.6
$\alpha_{20/300^{\circ}\text{C}}$ [10 ⁻⁶ /K]	7.2
$\alpha_{20/200^{\circ}\text{C}}$ [10 ⁻⁶ /K]	

Temperature coefficient	
T _k [nm/°C]	

Notes	
Ionically colored glass	
Neutral density 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".	

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					x				x					
y					y				y					
Y					Y				Y					
λ_d [nm]					λ_d [nm]				λ_d [nm]					
P _e					P _e				P _e					





Internal transmittance τ_i at reference thickness $d = 1$ 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	$1.3 \cdot 10^{-5}$	800	$2.7 \cdot 10^{-3}$	1100	$1.4 \cdot 10^{-2}$	2200	0.204	3700	$3.5 \cdot 10^{-2}$
210	$< 10^{-5}$	510	$1.3 \cdot 10^{-5}$	810	$3.0 \cdot 10^{-3}$	1110	$1.6 \cdot 10^{-2}$	2250	0.219	3750	$4.8 \cdot 10^{-2}$
220	$< 10^{-5}$	520	$1.4 \cdot 10^{-5}$	820	$3.4 \cdot 10^{-3}$	1120	$1.6 \cdot 10^{-2}$	2300	0.238	3800	$6.6 \cdot 10^{-2}$
230	$< 10^{-5}$	530	$1.5 \cdot 10^{-5}$	830	$3.7 \cdot 10^{-3}$	1130	$1.7 \cdot 10^{-2}$	2350	0.256	3850	$7.7 \cdot 10^{-2}$
240	$< 10^{-5}$	540	$1.6 \cdot 10^{-5}$	840	$4.1 \cdot 10^{-3}$	1140	$1.8 \cdot 10^{-2}$	2400	0.272	3900	$7.6 \cdot 10^{-2}$
250	$< 10^{-5}$	550	$1.6 \cdot 10^{-5}$	850	$4.3 \cdot 10^{-3}$	1150	$2.0 \cdot 10^{-2}$	2450	0.285	3950	$6.7 \cdot 10^{-2}$
260	$< 10^{-5}$	560	$1.5 \cdot 10^{-5}$	860	$4.6 \cdot 10^{-3}$	1160	$2.1 \cdot 10^{-2}$	2500	0.303	4000	$5.6 \cdot 10^{-2}$
270	$< 10^{-5}$	570	$1.3 \cdot 10^{-5}$	870	$4.8 \cdot 10^{-3}$	1170	$2.2 \cdot 10^{-2}$	2550	0.319	4050	$5.1 \cdot 10^{-2}$
280	$< 10^{-5}$	580	$1.3 \cdot 10^{-5}$	880	$5.2 \cdot 10^{-3}$	1180	$2.3 \cdot 10^{-2}$	2600	0.331	4100	$5.3 \cdot 10^{-2}$
290	$< 10^{-5}$	590	$1.3 \cdot 10^{-5}$	890	$5.2 \cdot 10^{-3}$	1190	$2.4 \cdot 10^{-2}$	2650	0.335	4150	$5.6 \cdot 10^{-2}$
300	$< 10^{-5}$	600	$1.5 \cdot 10^{-5}$	900	$5.5 \cdot 10^{-3}$	1200	$2.6 \cdot 10^{-2}$	2700	0.327	4200	$5.7 \cdot 10^{-2}$
310	$< 10^{-5}$	610	$1.8 \cdot 10^{-5}$	910	$5.7 \cdot 10^{-3}$	1250	$3.5 \cdot 10^{-2}$	2750	0.170	4250	$5.5 \cdot 10^{-2}$
320	$< 10^{-5}$	620	$2.2 \cdot 10^{-5}$	920	$5.9 \cdot 10^{-3}$	1300	$4.8 \cdot 10^{-2}$	2800	$8.9 \cdot 10^{-2}$	4300	$4.8 \cdot 10^{-2}$
330	$< 10^{-5}$	630	$2.7 \cdot 10^{-5}$	930	$6.0 \cdot 10^{-3}$	1350	$6.2 \cdot 10^{-2}$	2850	$8.2 \cdot 10^{-2}$	4350	$3.5 \cdot 10^{-2}$
340	$< 10^{-5}$	640	$3.3 \cdot 10^{-5}$	940	$6.5 \cdot 10^{-3}$	1400	$7.8 \cdot 10^{-2}$	2900	$9.2 \cdot 10^{-2}$	4400	$2.6 \cdot 10^{-2}$
350	$< 10^{-5}$	650	$4.1 \cdot 10^{-5}$	950	$6.7 \cdot 10^{-3}$	1450	$9.2 \cdot 10^{-2}$	2950	0.104	4450	$1.9 \cdot 10^{-2}$
360	$< 10^{-5}$	660	$5.6 \cdot 10^{-5}$	960	$7.1 \cdot 10^{-3}$	1500	0.103	3000	0.117	4500	$1.3 \cdot 10^{-2}$
370	$< 10^{-5}$	670	$8.3 \cdot 10^{-5}$	970	$7.6 \cdot 10^{-3}$	1550	0.111	3050	0.131	4550	$7.8 \cdot 10^{-3}$
380	$< 10^{-5}$	680	$1.3 \cdot 10^{-4}$	980	$7.6 \cdot 10^{-3}$	1600	0.115	3100	0.147	4600	$5.1 \cdot 10^{-3}$
390	$< 10^{-5}$	690	$2.1 \cdot 10^{-4}$	990	$8.2 \cdot 10^{-3}$	1650	0.114	3150	0.168	4650	$3.0 \cdot 10^{-3}$
400	$< 10^{-5}$	700	$3.2 \cdot 10^{-4}$	1000	$8.6 \cdot 10^{-3}$	1700	0.114	3200	0.186	4700	$1.8 \cdot 10^{-3}$
410	$< 10^{-5}$	710	$4.6 \cdot 10^{-4}$	1010	$9.1 \cdot 10^{-3}$	1750	0.114	3250	0.204	4750	$1.1 \cdot 10^{-3}$
420	$< 10^{-5}$	720	$6.2 \cdot 10^{-4}$	1020	$9.6 \cdot 10^{-3}$	1800	0.116	3300	0.213	4800	$6.3 \cdot 10^{-4}$
430	$< 10^{-5}$	730	$8.0 \cdot 10^{-4}$	1030	$9.8 \cdot 10^{-3}$	1850	0.120	3350	0.204	4850	$4.2 \cdot 10^{-4}$
440	$< 10^{-5}$	740	$9.9 \cdot 10^{-4}$	1040	$1.1 \cdot 10^{-2}$	1900	0.126	3400	0.166	4900	$2.5 \cdot 10^{-4}$
450	$< 10^{-5}$	750	$1.2 \cdot 10^{-3}$	1050	$1.1 \cdot 10^{-2}$	1950	0.135	3450	0.138	4950	$1.2 \cdot 10^{-4}$
460	$1.1 \cdot 10^{-5}$	760	$1.5 \cdot 10^{-3}$	1060	$1.2 \cdot 10^{-2}$	2000	0.146	3500	$9.4 \cdot 10^{-2}$	5000	$5.5 \cdot 10^{-5}$
470	$1.4 \cdot 10^{-5}$	770	$1.7 \cdot 10^{-3}$	1070	$1.2 \cdot 10^{-2}$	2050	0.159	3550	$6.2 \cdot 10^{-2}$	5050	$2.0 \cdot 10^{-5}$
480	$1.4 \cdot 10^{-5}$	780	$2.0 \cdot 10^{-3}$	1080	$1.3 \cdot 10^{-2}$	2100	0.172	3600	$4.0 \cdot 10^{-2}$	5100	$< 10^{-5}$
490	$1.4 \cdot 10^{-5}$	790	$2.4 \cdot 10^{-3}$	1090	$1.4 \cdot 10^{-2}$	2150	0.188	3650	$3.3 \cdot 10^{-2}$	5150	$< 10^{-5}$