

Data Sheet



UG11

Reflection factor	
P _d	0.908

Reference thickness	
d [mm]	1

Spectral values guaranteed		
τ_i (254nm)	\geq	0.06
τ_i (334nm)	\geq	0.9
τ_i (405nm)	\leq	0.001
τ_i (694nm)	\leq	0.26
τ_i (725nm)	\leq	0.32

Refractive Index n	
n (296.7 nm)	= 1.606
n (302.1 nm)	= 1.604
n _i (365.0 nm)	= 1.585
n _d (587.6 nm)	= 1.563
Sellmeier coefficients on request	

Density	
ρ [g/cm ³]	2.92

Bubble content	
Bubble class	2

Chemical Resistance	
FR class	0
SR class	3.0
AR class	2.2

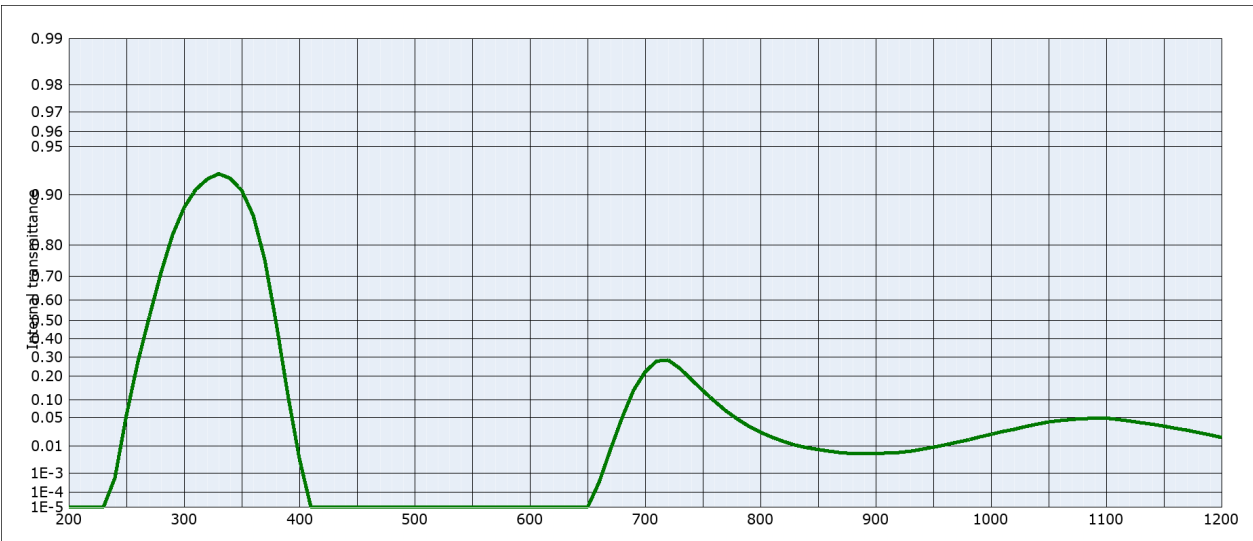
Transformation temperature	
T _g [°C]	545

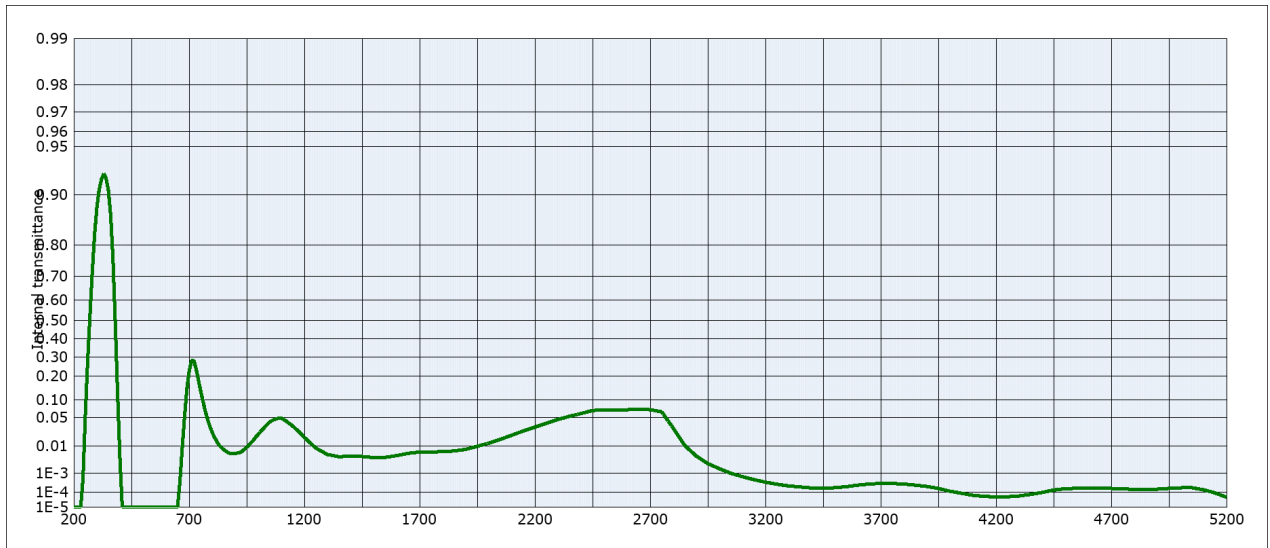
Thermal expansion	
$\alpha_{30/70^\circ\text{C}}$ [10 ⁻⁶ /K]	7.8
$\alpha_{20/300^\circ\text{C}}$ [10 ⁻⁶ /K]	9.0
$\alpha_{20/200^\circ\text{C}}$ [10 ⁻⁶ /K]	

Temperature coefficient	
T _K [nm/°C]	

Notes	
Ionically colored glass	
Bandpass filter	
☔ ☔	
Long-term changes of the polished surface are possible.	
☀	
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
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	$< 10^{-5}$	800	$2.4 \cdot 10^{-2}$	1100	$4.9 \cdot 10^{-2}$	2200	$3.2 \cdot 10^{-2}$	3700	$3.2 \cdot 10^{-4}$
210	$< 10^{-5}$	510	$< 10^{-5}$	810	$1.8 \cdot 10^{-2}$	1110	$4.6 \cdot 10^{-2}$	2250	$3.8 \cdot 10^{-2}$	3750	$3.2 \cdot 10^{-4}$
220	$< 10^{-5}$	520	$< 10^{-5}$	820	$1.4 \cdot 10^{-2}$	1120	$4.3 \cdot 10^{-2}$	2300	$4.6 \cdot 10^{-2}$	3800	$3.0 \cdot 10^{-4}$
230	$< 10^{-5}$	530	$< 10^{-5}$	830	$1.1 \cdot 10^{-2}$	1130	$3.9 \cdot 10^{-2}$	2350	$5.3 \cdot 10^{-2}$	3850	$2.6 \cdot 10^{-4}$
240	$6.1 \cdot 10^{-4}$	540	$< 10^{-5}$	840	$9.1 \cdot 10^{-3}$	1140	$3.7 \cdot 10^{-2}$	2400	$6.0 \cdot 10^{-2}$	3900	$2.2 \cdot 10^{-4}$
250	$5.6 \cdot 10^{-2}$	550	$< 10^{-5}$	850	$8.0 \cdot 10^{-3}$	1150	$3.3 \cdot 10^{-2}$	2450	$6.8 \cdot 10^{-2}$	3950	$1.7 \cdot 10^{-4}$
260	0.276	560	$< 10^{-5}$	860	$7.0 \cdot 10^{-3}$	1160	$3.0 \cdot 10^{-2}$	2500	$7.0 \cdot 10^{-2}$	4000	$1.2 \cdot 10^{-4}$
270	0.521	570	$< 10^{-5}$	870	$6.3 \cdot 10^{-3}$	1170	$2.7 \cdot 10^{-2}$	2550	$7.0 \cdot 10^{-2}$	4050	$9.0 \cdot 10^{-5}$
280	0.712	580	$< 10^{-5}$	880	$5.9 \cdot 10^{-3}$	1180	$2.4 \cdot 10^{-2}$	2600	$7.0 \cdot 10^{-2}$	4100	$6.7 \cdot 10^{-5}$
290	0.825	590	$< 10^{-5}$	890	$5.8 \cdot 10^{-3}$	1190	$2.1 \cdot 10^{-2}$	2650	$7.2 \cdot 10^{-2}$	4150	$5.7 \cdot 10^{-5}$
300	0.880	600	$< 10^{-5}$	900	$5.9 \cdot 10^{-3}$	1200	$1.8 \cdot 10^{-2}$	2700	$7.0 \cdot 10^{-2}$	4200	$5.2 \cdot 10^{-5}$
310	0.907	610	$< 10^{-5}$	910	$6.1 \cdot 10^{-3}$	1250	$8.8 \cdot 10^{-3}$	2750	$6.4 \cdot 10^{-2}$	4250	$5.4 \cdot 10^{-5}$
320	0.920	620	$< 10^{-5}$	920	$6.4 \cdot 10^{-3}$	1300	$5.5 \cdot 10^{-3}$	2800	$3.0 \cdot 10^{-2}$	4300	$6.1 \cdot 10^{-5}$
330	0.926	630	$< 10^{-5}$	930	$7.0 \cdot 10^{-3}$	1350	$4.6 \cdot 10^{-3}$	2850	$1.1 \cdot 10^{-2}$	4350	$7.6 \cdot 10^{-5}$
340	0.921	640	$< 10^{-5}$	940	$8.1 \cdot 10^{-3}$	1400	$4.8 \cdot 10^{-3}$	2900	$4.8 \cdot 10^{-3}$	4400	$1.0 \cdot 10^{-4}$
350	0.906	650	$< 10^{-5}$	950	$9.4 \cdot 10^{-3}$	1450	$4.6 \cdot 10^{-3}$	2950	$2.5 \cdot 10^{-3}$	4450	$1.4 \cdot 10^{-4}$
360	0.866	660	$3.6 \cdot 10^{-4}$	960	$1.1 \cdot 10^{-2}$	1500	$4.3 \cdot 10^{-3}$	3000	$1.6 \cdot 10^{-3}$	4500	$1.7 \cdot 10^{-4}$
370	0.756	670	$8.1 \cdot 10^{-3}$	970	$1.3 \cdot 10^{-2}$	1550	$4.3 \cdot 10^{-3}$	3050	$1.0 \cdot 10^{-3}$	4550	$1.7 \cdot 10^{-4}$
380	0.482	680	$5.0 \cdot 10^{-2}$	980	$1.5 \cdot 10^{-2}$	1600	$5.0 \cdot 10^{-3}$	3100	$7.0 \cdot 10^{-4}$	4600	$1.8 \cdot 10^{-4}$
390	0.120	690	0.138	990	$1.8 \cdot 10^{-2}$	1650	$6.0 \cdot 10^{-3}$	3150	$5.0 \cdot 10^{-4}$	4650	$1.7 \cdot 10^{-4}$
400	$4.0 \cdot 10^{-3}$	700	0.222	1000	$2.1 \cdot 10^{-2}$	1700	$6.6 \cdot 10^{-3}$	3200	$3.7 \cdot 10^{-4}$	4700	$1.7 \cdot 10^{-4}$
410	$1.0 \cdot 10^{-5}$	710	0.278	1010	$2.5 \cdot 10^{-2}$	1750	$6.7 \cdot 10^{-3}$	3250	$2.9 \cdot 10^{-4}$	4750	$1.6 \cdot 10^{-4}$
420	$< 10^{-5}$	720	0.283	1020	$2.8 \cdot 10^{-2}$	1800	$6.8 \cdot 10^{-3}$	3300	$2.4 \cdot 10^{-4}$	4800	$1.5 \cdot 10^{-4}$
430	$< 10^{-5}$	730	0.240	1030	$3.3 \cdot 10^{-2}$	1850	$7.2 \cdot 10^{-3}$	3350	$2.1 \cdot 10^{-4}$	4850	$1.5 \cdot 10^{-4}$
440	$< 10^{-5}$	740	0.185	1040	$3.7 \cdot 10^{-2}$	1900	$8.0 \cdot 10^{-3}$	3400	$1.8 \cdot 10^{-4}$	4900	$1.6 \cdot 10^{-4}$
450	$< 10^{-5}$	750	0.136	1050	$4.1 \cdot 10^{-2}$	1950	$1.0 \cdot 10^{-2}$	3450	$1.8 \cdot 10^{-4}$	4950	$1.7 \cdot 10^{-4}$
460	$< 10^{-5}$	760	$9.7 \cdot 10^{-2}$	1060	$4.4 \cdot 10^{-2}$	2000	$1.2 \cdot 10^{-2}$	3500	$1.9 \cdot 10^{-4}$	5000	$1.9 \cdot 10^{-4}$
470	$< 10^{-5}$	770	$6.7 \cdot 10^{-2}$	1070	$4.6 \cdot 10^{-2}$	2050	$1.6 \cdot 10^{-2}$	3550	$2.1 \cdot 10^{-4}$	5050	$1.9 \cdot 10^{-4}$
480	$< 10^{-5}$	780	$4.7 \cdot 10^{-2}$	1080	$4.8 \cdot 10^{-2}$	2100	$2.0 \cdot 10^{-2}$	3600	$2.6 \cdot 10^{-4}$	5100	$1.4 \cdot 10^{-4}$
490	$< 10^{-5}$	790	$3.3 \cdot 10^{-2}$	1090	$4.8 \cdot 10^{-2}$	2150	$2.6 \cdot 10^{-2}$	3650	$3.0 \cdot 10^{-4}$	5150	$9.4 \cdot 10^{-5}$