

BG55

Reflection factor	
P_d	0.913

Reference thickness	
d [mm]	1

Spectral values guaranteed	
τ_i (405 nm) \geq	0,76
τ_i (514 nm) \geq	0,93
τ_i (633 nm) \geq	0,18
τ_i (694 nm) \leq	0,016
τ_i (1060 nm) \leq	0.0005

Refractive index n		
λ [nm]	Element	n
588.6	He	1.54

Density	
ρ [g/cm ³]	2.64

Bubble content	
Bubble class	2

Chemical resistance	
FR class	0
SR class	2.0
AR class	2.0

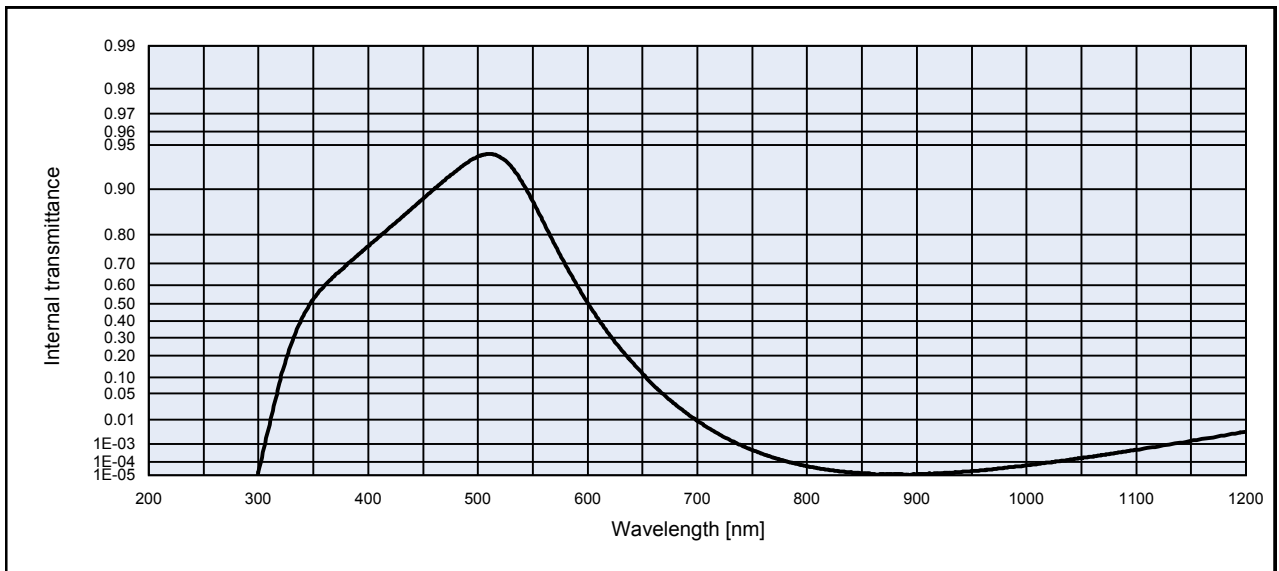
Transformation temperature	
T _g [°C]	453

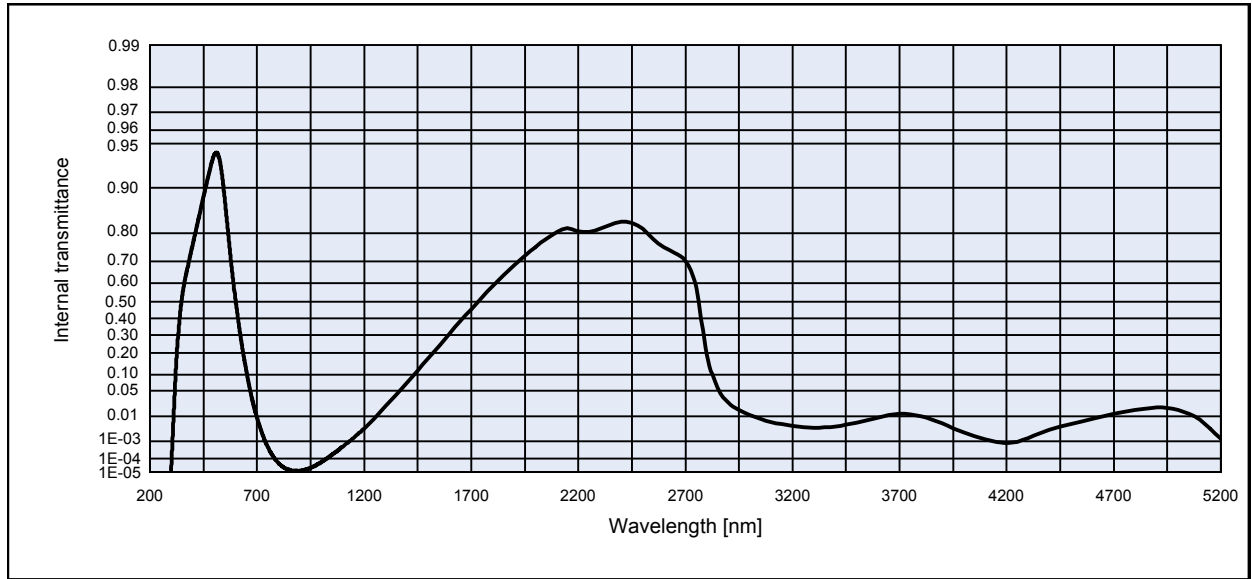
Thermal expansion	
$\alpha_{-30/+70^\circ\text{C}}$ [10 ⁻⁶ /K]	7.2
$\alpha_{20/300^\circ\text{C}}$ [10 ⁻⁶ /K]	9.1
$\alpha_{20/200^\circ\text{C}}$ [10 ⁻⁶ /K]	-

Temperature coefficient	
T _k [nm/°C]	

Notes
Ionically colored glass
Band pass filter / short pass filter
Color compensating filter / IR cut filter
[!]
protective coatings recommended
Long-term changes in the polished surface are possible
CR (ISO/WD 13384) = 1
Knoop hardness HK (0.1/20) = 504
cp = 0,83 J/gK
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]
x	0.356	0.302	0.267	x	0.336	0.285	0.252	x	0.252	0.220	0.201
y	0.438	0.452	0.460	y	0.423	0.432	0.437	y	0.329	0.328	0.328
Y	62	48	39	Y	63	49	41	Y	69	57	48
λ_d [nm]	501	500	500	λ_d [nm]	499	498	498	λ_d [nm]	492	491	491
P _e	0.21	0.33	0.41	P _e	0.21	0.34	0.42	P _e	0.22	0.34	0.41





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	< 1.0E-05	500	9.4E-01	800	4.9E-05	1100	5.1E-04	2200	8.0E-01	3700	1.2E-02
210	< 1.0E-05	510	9.4E-01	810	3.5E-05	1110	6.3E-04	2250	8.0E-01	3750	1.1E-02
220	< 1.0E-05	520	9.4E-01	820	2.7E-05	1120	7.6E-04	2300	8.1E-01	3800	9.9E-03
230	< 1.0E-05	530	9.3E-01	830	2.1E-05	1130	9.4E-04	2350	8.2E-01	3850	8.1E-03
240	< 1.0E-05	540	9.1E-01	840	1.7E-05	1140	1.2E-03	2400	8.3E-01	3900	5.6E-03
250	< 1.0E-05	550	8.8E-01	850	1.5E-05	1150	1.4E-03	2450	8.3E-01	3950	3.7E-03
260	< 1.0E-05	560	8.3E-01	860	1.2E-05	1160	1.7E-03	2500	8.1E-01	4000	2.6E-03
270	< 1.0E-05	570	7.7E-01	870	1.2E-05	1170	2.1E-03	2550	7.8E-01	4050	1.7E-03
280	< 1.0E-05	580	6.9E-01	880	1.2E-05	1180	2.5E-03	2600	7.5E-01	4100	1.2E-03
290	< 1.0E-05	590	6.0E-01	890	1.2E-05	1190	3.0E-03	2650	7.3E-01	4150	9.3E-04
300	1.9E-05	600	5.1E-01	900	1.2E-05	1200	3.7E-03	2700	7.0E-01	4200	7.9E-04
310	6.7E-03	610	4.1E-01	910	1.3E-05	1250	8.7E-03	2750	5.9E-01	4250	8.8E-04
320	9.2E-02	620	3.2E-01	920	1.4E-05	1300	2.1E-02	2800	1.9E-01	4300	1.3E-03
330	2.6E-01	630	2.4E-01	930	1.5E-05	1350	4.0E-02	2850	5.6E-02	4350	2.2E-03
340	4.2E-01	640	1.7E-01	940	1.8E-05	1400	7.2E-02	2900	2.6E-02	4400	3.2E-03
350	5.3E-01	650	1.1E-01	950	2.2E-05	1450	1.1E-01	2950	1.6E-02	4450	4.3E-03
360	6.0E-01	660	7.2E-02	960	2.5E-05	1500	1.7E-01	3000	1.1E-02	4500	5.5E-03
370	6.5E-01	670	4.5E-02	970	3.0E-05	1550	2.4E-01	3050	8.4E-03	4550	6.8E-03
380	6.9E-01	680	2.7E-02	980	3.8E-05	1600	3.1E-01	3100	6.5E-03	4600	8.5E-03
390	7.3E-01	690	1.6E-02	990	4.6E-05	1650	3.8E-01	3150	5.3E-03	4650	1.0E-02
400	7.6E-01	700	9.0E-03	1000	5.6E-05	1700	4.6E-01	3200	4.5E-03	4700	1.2E-02
410	7.9E-01	710	5.1E-03	1010	7.0E-05	1750	5.2E-01	3250	4.1E-03	4750	1.4E-02
420	8.2E-01	720	2.8E-03	1020	8.8E-05	1800	5.8E-01	3300	4.0E-03	4800	1.6E-02
430	8.4E-01	730	1.6E-03	1030	1.1E-04	1850	6.4E-01	3350	4.1E-03	4850	1.8E-02
440	8.7E-01	740	8.8E-04	1040	1.4E-04	1900	6.8E-01	3400	4.5E-03	4900	1.9E-02
450	8.8E-01	750	5.0E-04	1050	1.7E-04	1950	7.2E-01	3450	5.0E-03	4950	1.9E-02
460	9.0E-01	760	2.9E-04	1060	2.1E-04	2000	7.5E-01	3500	6.0E-03	5000	1.6E-02
470	9.1E-01	770	1.8E-04	1070	2.7E-04	2050	7.8E-01	3550	7.4E-03	5050	1.2E-02
480	9.2E-01	780	1.1E-04	1080	3.3E-04	2100	8.0E-01	3600	9.1E-03	5100	7.9E-03
490	9.3E-01	790	7.2E-05	1090	4.1E-04	2150	8.1E-01	3650	1.1E-02	5150	3.8E-03