

Data Sheet



RG630

Reflection factor	
P_d	0.92

Reference thickness	
d [mm]	3

Spectral values guaranteed	
λ_c ($\tau_i = 0.50$) [nm]	= 630 ± 6
λ_s ($\tau_{is} = 1 \cdot 10^{-5}$) [nm]	= 540
λ_p ($\tau_{ip} = 0.94$) [nm]	= 710

Refractive index n		
λ [nm]	Element	n
587.6	He	1.52
852.1	Cs	1.52
1014	Hg	1.51

Density	
ρ [g/cm ³]	2.65

Bubble content	
Bubble class	3

Chemical resistance	
FR class	0
SR class	1.0
AR class	1.0

Transformation temperature	
T_g [°C]	527

Thermal expansion	
$\alpha_{-30/+70^\circ\text{C}}$ [10 ⁻⁶ /K]	8.0
$\alpha_{20/300^\circ\text{C}}$ [10 ⁻⁶ /K]	9.2
$\alpha_{20/200^\circ\text{C}}$ [10 ⁻⁶ /K]	

Temperature coefficient	
T_k [nm/°C]	0.14

Notes

Colloidally colored glass

Long pass filter

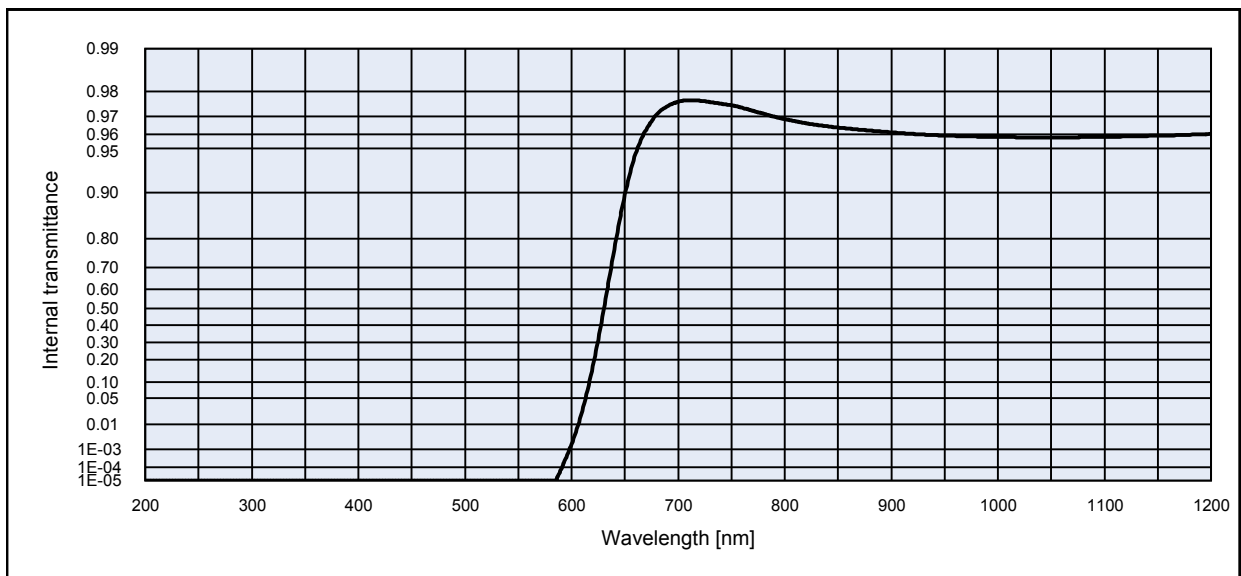
All data without tolerances are to be understood to be reference values. Guaranteed values are only those values listed in the section "Spectral values guaranteed".

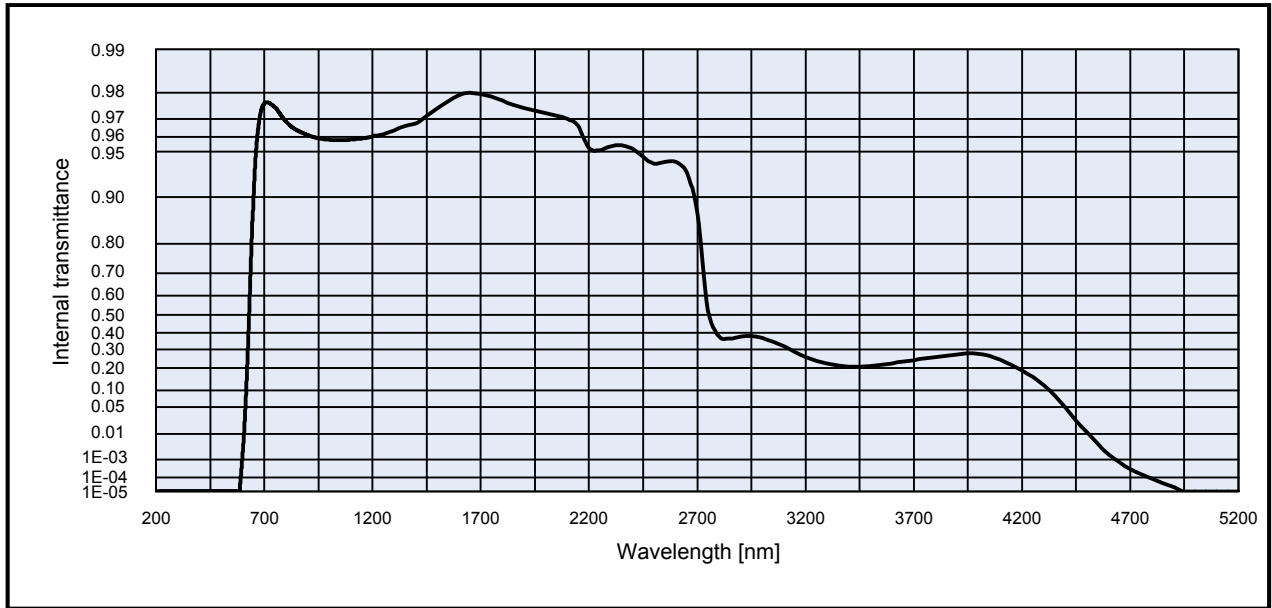
Colorimetric evaluation

Illuminant	A (Planck T = 2856 K)		
	1	2	3
d [mm]	1	2	3
x	0.678	0.712	0.718
y	0.307	0.287	0.282
Y	15	9	8
λ_d [nm]	627	634	639
P_e	0.90	1.00	1.00

Illuminant	Planck T = 3200 K		
	1	2	3
d [mm]	1	2	3
x	0.672	0.712	0.717
y	0.308	0.287	0.283
Y	14	8	7
λ_d [nm]	627	634	638
P_e	0.89	1.00	1.00

Illuminant	D65 ($T_c = 6504$ K)		
	1	2	3
d [mm]	1	2	3
x	0.624	0.708	0.716
y	0.305	0.289	0.284
Y	9	5	4
λ_d [nm]	625	633	637
P_e	0.80	0.99	1.00





Internal transmittance τ_i at reference thickness d [mm] = 3
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	< 1.0E-05	800	9.7E-01	1100	9.6E-01	2200	9.5E-01	3700	2.4E-01
210	< 1.0E-05	510	< 1.0E-05	810	9.7E-01	1110	9.6E-01	2250	9.5E-01	3750	2.5E-01
220	< 1.0E-05	520	< 1.0E-05	820	9.7E-01	1120	9.6E-01	2300	9.5E-01	3800	2.6E-01
230	< 1.0E-05	530	< 1.0E-05	830	9.7E-01	1130	9.6E-01	2350	9.5E-01	3850	2.7E-01
240	< 1.0E-05	540	< 1.0E-05	840	9.6E-01	1140	9.6E-01	2400	9.5E-01	3900	2.7E-01
250	< 1.0E-05	550	< 1.0E-05	850	9.6E-01	1150	9.6E-01	2450	9.5E-01	3950	2.8E-01
260	< 1.0E-05	560	< 1.0E-05	860	9.6E-01	1160	9.6E-01	2500	9.4E-01	4000	2.8E-01
270	< 1.0E-05	570	< 1.0E-05	870	9.6E-01	1170	9.6E-01	2550	9.4E-01	4050	2.6E-01
280	< 1.0E-05	580	< 1.0E-05	880	9.6E-01	1180	9.6E-01	2600	9.4E-01	4100	2.4E-01
290	< 1.0E-05	590	6.2E-05	890	9.6E-01	1190	9.6E-01	2650	9.3E-01	4150	2.2E-01
300	< 1.0E-05	600	1.7E-03	900	9.6E-01	1200	9.6E-01	2700	8.7E-01	4200	1.9E-01
310	< 1.0E-05	610	2.5E-02	910	9.6E-01	1250	9.6E-01	2750	5.2E-01	4250	1.6E-01
320	< 1.0E-05	620	1.7E-01	920	9.6E-01	1300	9.6E-01	2800	3.8E-01	4300	1.2E-01
330	< 1.0E-05	630	4.9E-01	930	9.6E-01	1350	9.7E-01	2850	3.7E-01	4350	8.3E-02
340	< 1.0E-05	640	7.7E-01	940	9.6E-01	1400	9.7E-01	2900	3.8E-01	4400	4.9E-02
350	< 1.0E-05	650	9.0E-01	950	9.6E-01	1450	9.7E-01	2950	3.8E-01	4450	2.4E-02
360	< 1.0E-05	660	9.5E-01	960	9.6E-01	1500	9.7E-01	3000	3.7E-01	4500	1.1E-02
370	< 1.0E-05	670	9.6E-01	970	9.6E-01	1550	9.8E-01	3050	3.5E-01	4550	4.7E-03
380	< 1.0E-05	680	9.7E-01	980	9.6E-01	1600	9.8E-01	3100	3.2E-01	4600	1.7E-03
390	< 1.0E-05	690	9.7E-01	990	9.6E-01	1650	9.8E-01	3150	2.9E-01	4650	7.5E-04
400	< 1.0E-05	700	9.8E-01	1000	9.6E-01	1700	9.8E-01	3200	2.6E-01	4700	3.2E-04
410	< 1.0E-05	710	9.8E-01	1010	9.6E-01	1750	9.8E-01	3250	2.4E-01	4750	1.6E-04
420	< 1.0E-05	720	9.8E-01	1020	9.6E-01	1800	9.8E-01	3300	2.2E-01	4800	8.4E-05
430	< 1.0E-05	730	9.8E-01	1030	9.6E-01	1850	9.8E-01	3350	2.1E-01	4850	4.4E-05
440	< 1.0E-05	740	9.8E-01	1040	9.6E-01	1900	9.7E-01	3400	2.1E-01	4900	2.2E-05
450	< 1.0E-05	750	9.7E-01	1050	9.6E-01	1950	9.7E-01	3450	2.1E-01	4950	< 1.0E-05
460	< 1.0E-05	760	9.7E-01	1060	9.6E-01	2000	9.7E-01	3500	2.1E-01	5000	< 1.0E-05
470	< 1.0E-05	770	9.7E-01	1070	9.6E-01	2050	9.7E-01	3550	2.2E-01	5050	< 1.0E-05
480	< 1.0E-05	780	9.7E-01	1080	9.6E-01	2100	9.7E-01	3600	2.2E-01	5100	< 1.0E-05
490	< 1.0E-05	790	9.7E-01	1090	9.6E-01	2150	9.7E-01	3650	2.3E-01	5150	< 1.0E-05