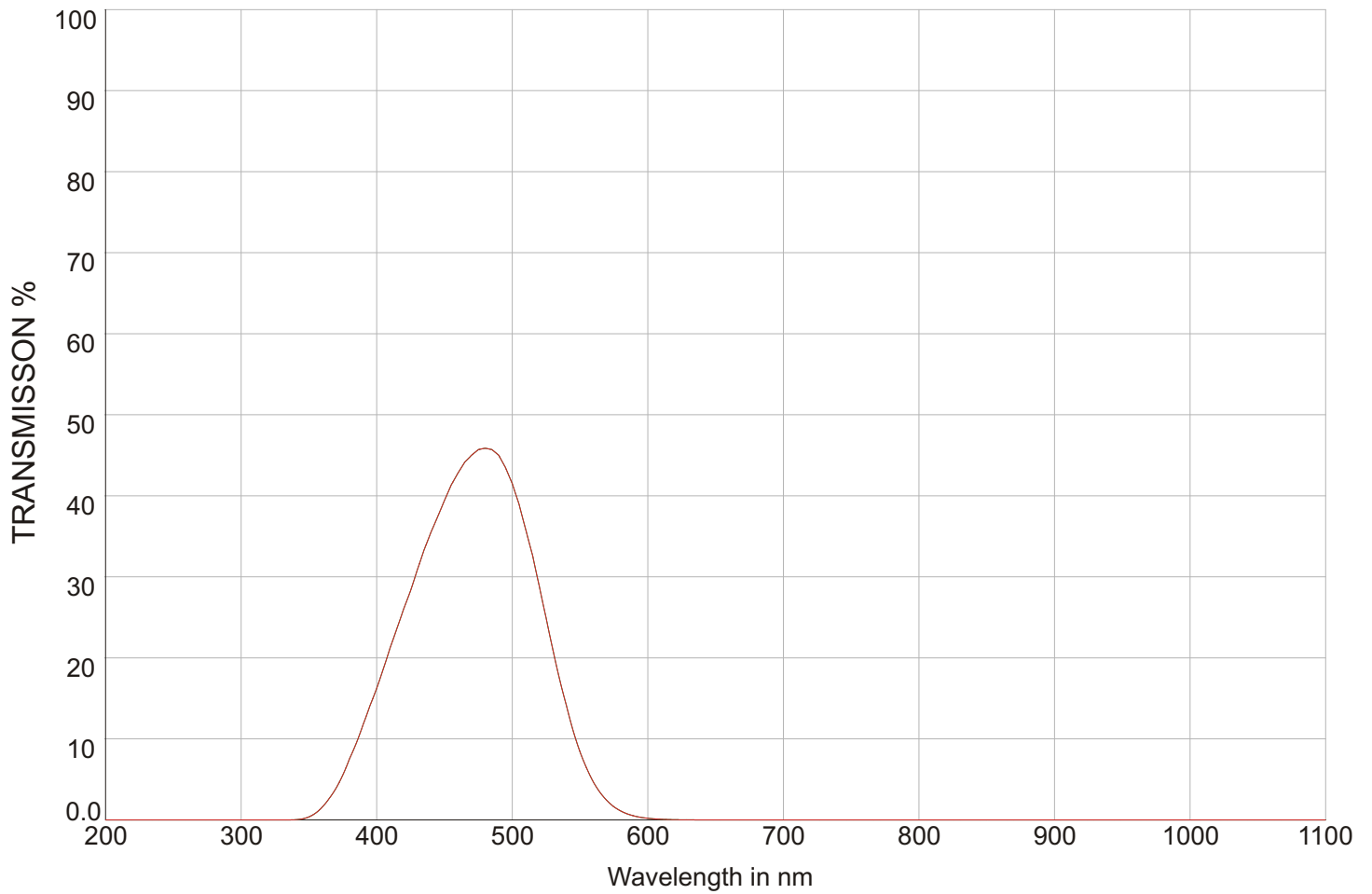


Title: Colour Glass Filter (Bandpass)
Material / Specification: Schott BG7 - 475nm
Range / Description: 476FCS



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INTERNAL TRANSMITTANCE FOR 3MM THICK

Title: Colour Glass Filter (Bandpass)
Material / Specification: Schott BG7 - 475nm
Range / Description: 476FCS

Reflection factor
 P_d 0.92
Bubble content
 Bubble class 1
Chemical resistance
 FR class 0
 SR class 1.0
 AR class 1.0

Density
 ρ [g/cm³] 2.61
Transformation temperature
 T_g [°C] 468
Thermal expansion
 $\alpha_{-30/+70^\circ\text{C}}$ [10⁻⁶/K] 8.5
 $\alpha_{20/300^\circ\text{C}}$ [10⁻⁶/K] 9.9
Temperature coefficient
 T_k [nm/°C]

Per DIN 58191
BP 466/182
Per DIN 58191
 Ionically colored glass

Limit values of τ_i
 for thickness $d = 1$ mm

Wave-length [nm]	Limits	Value from catalog curve
365	≥ 0.25	0.30
488	≥ 0.78	0.79
633	≤ 0.08	0.05

Refractive index n

λ [nm]	Element	n
404.7	Hg	1.54
587.6	He	1.52

Tristimulus values

	d [mm]	x	y	Y	λ_d [nm]	P_e
A	1	0.263	0.406	30	495	0.44
2856	2	0.180	0.361	15	492	0.65
K	3	0.145	0.318	8	490	0.75
	5	0.121	0.259	3	487	0.84
3200	1	0.246	0.382	32	493	0.45
	2	0.172	0.334	16	490	0.66
K	3	0.143	0.292	9	488	0.76
	5	0.122	0.239	4	485	0.84
D_{65}	1	0.191	0.272	38	486	0.49
	2	0.152	0.229	21	484	0.67
3	3	0.138	0.200	13	482	0.76
	5	0.127	0.168	6	480	0.83

Application notes
 Band pass filter

Transmittance τ and internal transmittance $\tau_i = 1$ mm

λ [nm]	τ	τ_i	λ [nm]	τ	τ_i
200	<1·10 ⁻⁵	<1·10 ⁻⁵	700	0.006	0.007
210	<1·10 ⁻⁵	<1·10 ⁻⁵	710	0.005	0.006
220	<1·10 ⁻⁵	<1·10 ⁻⁵	720	0.005	0.005
230	<1·10 ⁻⁵	<1·10 ⁻⁵	730	0.004	0.004
240	<1·10 ⁻⁵	<1·10 ⁻⁵	740	0.004	0.004
250	<1·10 ⁻⁵	<1·10 ⁻⁵	750	0.003	0.003
260	<1·10 ⁻⁵	<1·10 ⁻⁵	760	0.003	0.003
270	<1·10 ⁻⁵	<1·10 ⁻⁵	770	0.003	0.003
280	<1·10 ⁻⁵	<1·10 ⁻⁵	780	0.003	0.003
290	<1·10 ⁻⁵	<1·10 ⁻⁵	790	0.003	0.003
300	<1·10 ⁻⁵	<1·10 ⁻⁵	800	0.003	0.003
310	<1·10 ⁻⁵	<1·10 ⁻⁵	850	0.003	0.003
320	5·10 ⁻⁴	5·10 ⁻⁴	900	0.005	0.005
330	0.01	0.01	950	0.008	0.009
340	0.06	0.07	1000	0.01	0.02
350	0.15	0.16	1060	0.03	0.03
360	0.24	0.26	1100	0.04	0.04
370	0.32	0.35	1200	0.09	0.10
380	0.40	0.44	1300	0.16	0.17
390	0.46	0.50	1400	0.24	0.26
400	0.52	0.56	1500	0.33	0.36
410	0.56	0.61	1600	0.43	0.46
420	0.60	0.66	1700	0.51	0.55
430	0.64	0.70	1800	0.57	0.62
440	0.67	0.73	1900	0.63	0.68
450	0.69	0.75	2000	0.68	0.74
460	0.71	0.78	2100	0.71	0.77
470	0.72	0.79	2200	0.74	0.80
480	0.73	0.79	2300	0.75	0.82
490	0.72	0.79	2400	0.78	0.85
500	0.71	0.77	2500	0.80	0.87
510	0.67	0.73	2600	0.82	0.89
520	0.62	0.68	2700	0.81	0.88
530	0.56	0.61	2800	0.63	0.69
540	0.49	0.54	2900	0.63	0.68
550	0.41	0.45	3000	0.60	0.65
560	0.34	0.37	3200	0.51	0.55
570	0.27	0.30	3400	0.41	0.45
580	0.21	0.23	3600	0.40	0.43
590	0.16	0.17	3800	0.42	0.46
600	0.12	0.13	4000	0.46	0.50
610	0.09	0.10	4200	0.40	0.43
620	0.06	0.07	4400	0.27	0.29
630	0.05	0.05	4600	0.08	0.09
640	0.03	0.04	4800	0.03	0.03
650	0.02	0.03	5000	0.009	0.01
660	0.02	0.02	5200	5·10 ⁻⁴	5·10 ⁻⁴
670	0.01	0.02			
680	0.01	0.01			
690	0.008	0.009			