Title: Colour Glass Filter (Bandpass)
Material / Specification: Schott BG28 - 445nm
Range / Description: 445FCS

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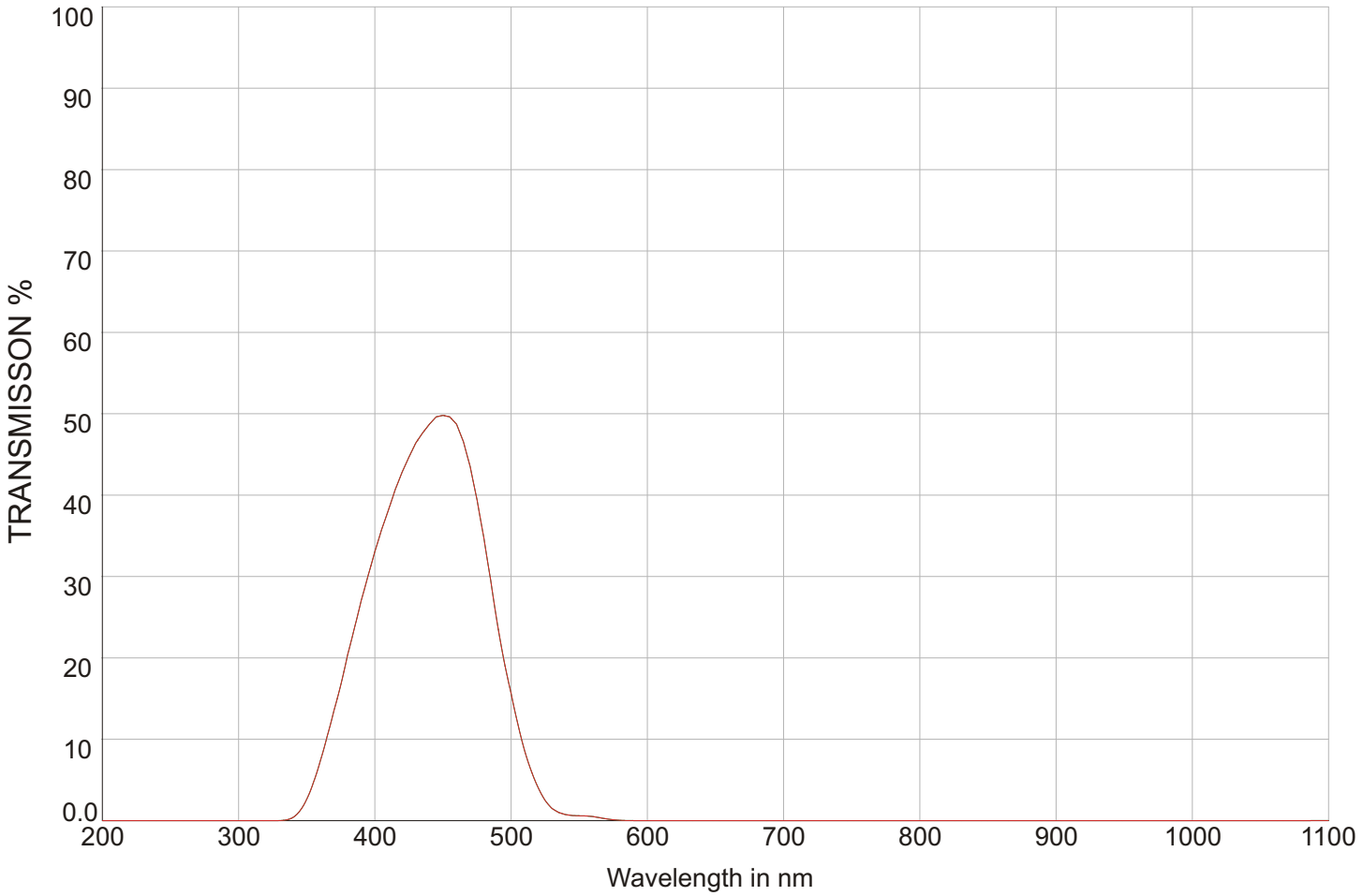

INTERNAL TRANSMITTANCE FOR 3MM THICK

Title: Colour Glass Filter (Bandpass)
Material / Specification: Schott BG28 - 445nm
Range / Description: 445FCS

SCHOTT
glass made of ideas

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/cm^3]	2.60

Transformation temperature

Tg [°C]	474

Thermal expansion

$\alpha_{-30/+70°C}$ [10^{-6}/K]	8.7
$\alpha_{20/300°C}$ [10^{-6}/K]	10.0

Temperature coefficient

T_k [nm/°C]	

Per DIN 58191	**BP 436/156**
Per DIN 58191	**KP 514**

Ionically colored glass

Limit values of τ_i
for thickness d = 1 mm

Wave-length [nm]	Limits	Value from catalog curve
450	≥0.80	0.82
694	≤0.02	0.009

Refractive index n

λ [nm]	Element	n
404.7	Hg	1.53
587.6	He	1.52

Tristimulus values

	d [mm]	x	y	Y	λ_d [nm]	P_e
A	1	0.199	0.291	14	486	0.64
2856	2	0.143	0.157	4	479	0.87
K	3	0.137	0.097	2	473	0.93
	5	0.141	0.056	1	467	0.97
	1	0.189	0.264	15	485	0.67
3200	2	0.143	0.141	5	477	0.87
K	3	0.138	0.088	2	472	0.94
	5	0.142	0.052	1	466	0.97
	1	0.161	0.169	19	477	0.72
D_{65}	2	0.143	0.093	7	471	0.89
	3	0.143	0.063	4	467	0.94
	5	0.146	0.041	2	462	0.97

Application notes
Band pass filter

Short pass filter

V
Transmission changes are possible under the action of intense ultraviolet radiation

Transmittance τ and internal transmittance τ_i = 1 mm

λ [nm]	τ	τ_i	λ [nm]	τ	τ_i
200	$<1\cdot10^{-5}$	$<1\cdot10^{-5}$	700	0.008	0.009
210	$<1\cdot10^{-5}$	$<1\cdot10^{-5}$	710	0.007	0.008
220	$<1\cdot10^{-5}$	$<1\cdot10^{-5}$	720	0.006	0.007
230	$<1\cdot10^{-5}$	$<1\cdot10^{-5}$	730	0.006	0.006
240	$<1\cdot10^{-5}$	$<1\cdot10^{-5}$	740	0.005	0.005
250	$<1\cdot10^{-5}$	$<1\cdot10^{-5}$	750	0.005	0.005
260	$<1\cdot10^{-5}$	$<1\cdot10^{-5}$	760	0.004	0.004
270	$<1\cdot10^{-5}$	$<1\cdot10^{-5}$	770	0.004	0.004
280	$<1\cdot10^{-5}$	$<1\cdot10^{-5}$	780	0.004	0.004
290	$<1\cdot10^{-5}$	$<1\cdot10^{-5}$	790	0.004	0.004
300	$<1\cdot10^{-5}$	$<1\cdot10^{-5}$	800	0.004	0.004
310	$<1\cdot10^{-5}$	$<1\cdot10^{-5}$	850	0.004	0.004
320	0.004	0.004	900	0.007	0.008
330	0.05	0.05	950	0.01	0.01
340	0.15	0.16	1000	0.02	0.02
350	0.28	0.31	1060	0.03	0.04
360	0.40	0.43	1100	0.05	0.05
370	0.49	0.53	1200	0.08	0.09
380	0.56	0.61	1300	0.14	0.15
390	0.61	0.67	1400	0.21	0.23
400	0.65	0.71	1500	0.27	0.29
410	0.69	0.75	1600	0.34	0.37
420	0.71	0.78	1700	0.40	0.44
430	0.73	0.80	1800	0.46	0.50
440	0.74	0.81	1900	0.54	0.59
450	0.75	0.82	2000	0.62	0.67
460	0.74	0.81	2100	0.67	0.73
470	0.72	0.78	2200	0.71	0.77
480	0.67	0.72	2300	0.75	0.81
490	0.59	0.64	2400	0.77	0.84
500	0.51	0.55	2500	0.78	0.85
510	0.42	0.45	2600	0.79	0.86
520	0.32	0.35	2700	0.78	0.85
530	0.23	0.25	2800	0.63	0.69
540	0.18	0.20	2900	0.62	0.67
550	0.17	0.19	3000	0.60	0.65
560	0.16	0.18	3200	0.52	0.56
570	0.12	0.13	3400	0.43	0.47
580	0.07	0.08	3600	0.40	0.44
590	0.04	0.04	3800	0.43	0.47
600	0.03	0.03	4000	0.46	0.50
610	0.02	0.03	4200	0.40	0.43
620	0.02	0.02	4400	0.25	0.27
630	0.01	0.01	4600	0.08	0.09
640	0.009	0.01	4800	0.03	0.03
650	0.007	0.008	5000	0.009	0.01
660	0.006	0.007	5200	$5\cdot10^{-4}$	$5\cdot10^{-4}$
670	0.007	0.008			
680	0.008	0.009			
690	0.008	0.009			

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