Title: Colour Glass Filter (Bandpass)
Material / Specification: Schott VG6 - 520nm
Range / Description: 521FCS

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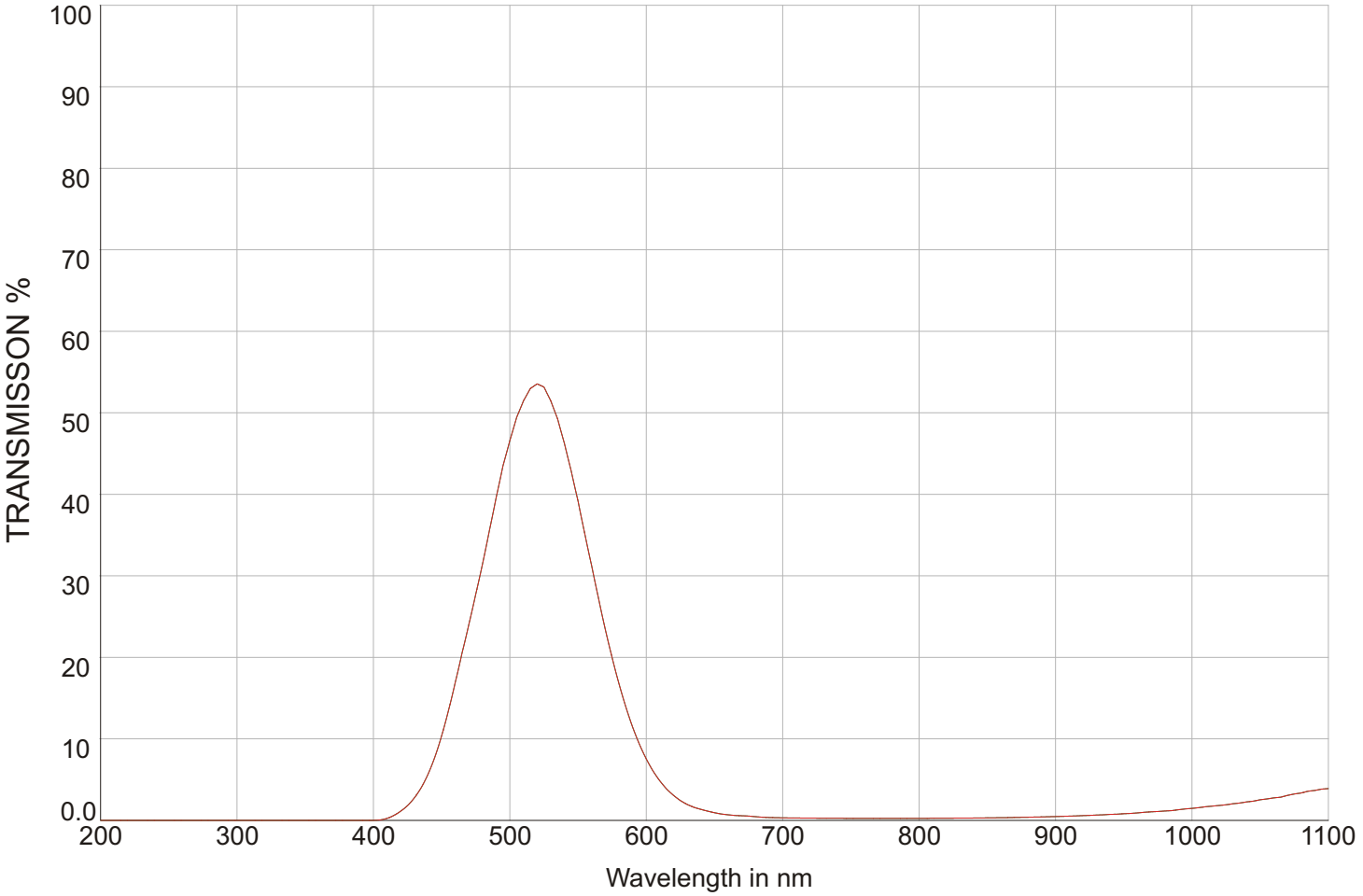

INTERNAL TRANSMITTANCE FOR 3MM THICK

Title: Colour Glass Filter (Bandpass)
Material / Specification: Schott VG6 - 520nm
Range / Description: 521FCS

SCHOTT
glass made of ideas

Reflection factor

P_d	0.91

Bubble content

Bubble class	1

Chemical resistance

FR class	0
SR class	1.0
AR class	1.0

Density

ρ [g/cm^3]	2.90

Transformation temperature

Tg [°C]	470

Thermal expansion

$\alpha_{-30/+70°C}$ [10^{-6}/K]	9.1
$\alpha_{20/300°C}$ [10^{-6}/K]	10.6

Temperature coefficient

T_k [nm/°C]	

Per DIN 58191 **BP 523/160**
Per DIN 58191

Ionically colored glass

Limit values of τ_i
for thickness d = 1 mm

Wave-length [nm]	Limits	Value from catalog curve
450	≤0.62	0.49
514	≥0.80	0.83
633	≤0.30	0.27
725	≤0.17	0.14
1060	≤0.34	0.31

Refractive index n

λ [nm]	Element	n
480	Cd	1.56
587.6	He	1.55

Tristimulus values

	d [mm]	x	y	Y	λ_d [nm]	P_e
A	1	0.383	0,463	54	512	0.15
2856	2	0.330	0.513	35	513	0.28
K	3	0.290	0.554	25	513	0.38
	5	0.236	0.615	14	515	0.52
	1	0.363	0.455	55	511	0.15
3200	2	0.314	0.505	37	512	0.27
K	3	0.277	0.547	26	513	0.37
	5	0.227	0.609	14	515	0.51
	1	0.276	0.390	59	513	0.13
D_{65}	2	0.246	0.445	42	515	0.24
	3	0.223	0.492	30	516	0.33
	5	0.192	0.567	18	518	0.48

Application notes
Band pass filter

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	0.14	0.15
210	$<1\cdot10^{-5}$	$<1\cdot10^{-5}$	710	0.13	0.15
220	$<1\cdot10^{-5}$	$<1\cdot10^{-5}$	720	0.13	0.15
230	$<1\cdot10^{-5}$	$<1\cdot10^{-5}$	730	0.13	0.14
240	$<1\cdot10^{-5}$	$<1\cdot10^{-5}$	740	0.13	0.14
250	$<1\cdot10^{-5}$	$<1\cdot10^{-5}$	750	0.13	0.14
260	$<1\cdot10^{-5}$	$<1\cdot10^{-5}$	760	0.13	0.14
270	$<1\cdot10^{-5}$	$<1\cdot10^{-5}$	770	0.13	0.14
280	$<1\cdot10^{-5}$	$<1\cdot10^{-5}$	780	0.13	0.14
290	$<1\cdot10^{-5}$	$<1\cdot10^{-5}$	790	0.13	0.14
300	$<1\cdot10^{-5}$	$<1\cdot10^{-5}$	800	0.13	0.14
310	$6\cdot10^{-5}$	$7\cdot10^{-5}$	850	0.14	0.15
320	0.002	0.002	900	0.16	0.17
330	0.004	0.004	950	0.19	0.21
340	0.002	0.002	1000	0.23	0.25
350	$2\cdot10^{-4}$	$2\cdot10^{-4}$	1060	0.28	0.31
360	$2\cdot10^{-5}$	$2\cdot10^{-5}$	1100	0.32	0.35
370	$2\cdot10^{-5}$	$2\cdot10^{-5}$	1200	0.42	0.46
380	$9\cdot10^{-5}$	$1\cdot10^{-4}$	1300	0.51	0.56
390	0.003	0.003	1400	0.58	0.64
400	0.04	0.04	1500	0.65	0.71
410	0.13	0.14	1600	0.70	0.77
420	0.21	0.23	1700	0.74	0.81
430	0.28	0.31	1800	0.77	0.85
440	0.36	0.40	1900	0.80	0.88
450	0.44	0.49	2000	0.82	0.90
460	0.52	0.57	2100	0.83	0.91
470	0.58	0.64	2200	0.84	0.92
480	0.64	0.70	2300	0.85	0.93
490	0.69	0.76	2400	0.85	0.93
500	0.73	0.80	2500	0.85	0.93
510	0.75	0.83	2600	0.85	0.93
520	0.76	0.84	2700	0.84	0.92
530	0.75	0.83	2800	0.62	0.68
540	0.73	0.80	2900	0.61	0.67
550	0.69	0.76	3000	0.58	0.64
560	0.64	0.70	3200	0.50	0.55
570	0.58	0.64	3400	0.43	0.47
580	0.52	0.57	3600	0.40	0.44
590	0.46	0.50	3800	0.42	0.46
600	0.40	0.44	4000	0.44	0.48
610	0.34	0.38	4200	0.36	0.40
620	0.29	0.32	4400	0.23	0.25
630	0.25	0.28	4600	0.06	0.07
640	0.22	0.25	4800	0.009	0.01
650	0.20	0.22	5000	0.003	0.003
660	0.18	0.20	5200	$9\cdot10^{-5}$	$1\cdot10^{-4}$
670	0.17	0.18			
680	0.16	0.17			
690	0.14	0.16			

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