FILTER'99 - CATALOG OPTICAL GLASS FILTER

TRANSMITTANCE LINEAR

Schott BG24a Blue Multi Bandpass Filter
http://www.galvoptics.co.uk/products/filters/schott-bandpass-filters/
Please CLICK link above to buy ONLINE

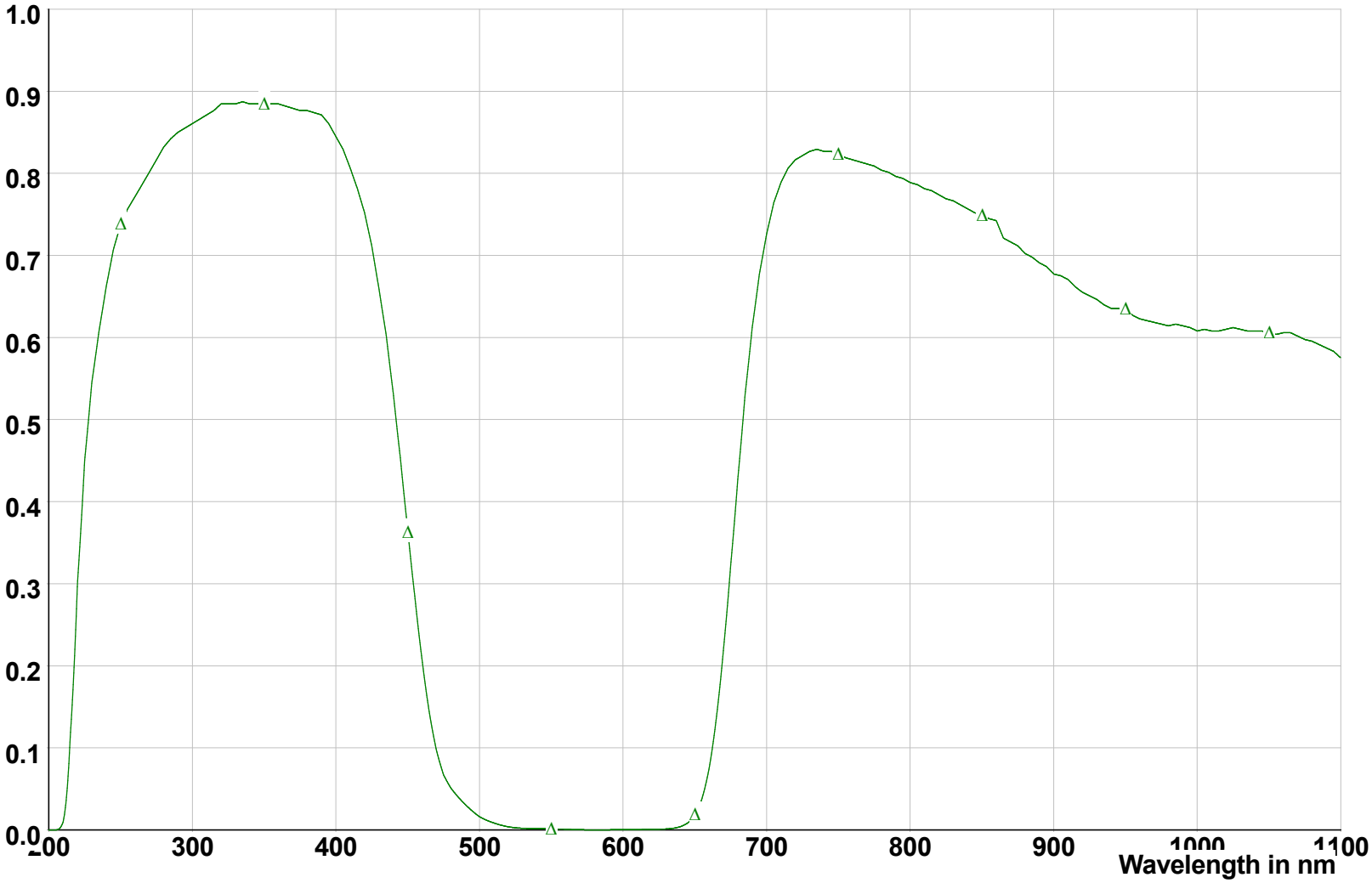
SCHOTT
glass made of ideas

Cemented ×

Non-Cemented ⊕

BG 24A Δ

3.0 mm



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BG 24A

Reflection factor			
P_d	0.92		
Bubble content			
Bubble class	1		
Chemical resistance			
FR class	0		
SR class	3.0		
AR class	2.0		
Density			
ρ [g/cm^3]	2.72		
Transformation temperature			
Tg [°C]	460		
Thermal expansion			
$\alpha_{-30/+70°C}$ [10^{-6}/K]	8.5		
$\alpha_{20/300°C}$ [10^{-6}/K]	9.7		
Temperature coefficient			
T_k [nm/°C]			
		Per DIN 58191	**BP 342/253**
		Per DIN 58191	
		Ionically colored glass	

Limit values of τ_i
for thickness d = 1 mm

Wave-length [nm]	Limits	Value from catalog curve
254	≥0.84	0.94
365	≥0.95	0.99
488	≤0.41	0.34
633	≤0.24	0.12

Refractive index n

λ [nm]	Element	n
253.7	Hg	1.59
365	Hg	1.55
587.6	He	1.53
1014	Hg	1.52

Tristimulus values

	d [mm]	x	y	Y	λ_d [nm]	P_e
A	1	0.329	0.243	11	443	0.42
2856	2	0.260	0.110	2	-579	0.76
K	3	0.243	0.065	1	-578	0.90
	5	0.238	0.047	0	-578	0.96
	1	0.294	0.219	11	453	0.48
3200	2	0.230	0.092	2	-577	0.78
K	3	0.217	0.052	1	-577	0.90
	5	0.213	0.035	0	-576	0.96
	1	0.199	0.129	13	461	0.67
D_{65}	2	0.173	0.048	3	449	0.90
	3	0.171	0.026	1	441	0.95
	5	0.173	0.016	0	430	0.97

Application notes
Band pass filter
- see section 6.7.3

[!!]
Long-term changes in the polished surface are possible
- see section 5.5

V
Transmission changes are possible under the action of intense ultraviolet radiation
- see section 8.3

Status June 1997

Transmittance τ and internal transmittance τ_i = 1 mm

λ [nm]	τ	τ_i	λ [nm]	τ	τ_i
200	$2\cdot10^{-4}$	$2\cdot10^{-4}$	700	0.85	0.92
210	0.20	0.22	710	0.87	0.95
220	0.63	0.69	720	0.88	0.96
230	0.77	0.84	730	0.89	0.97
240	0.82	0.90	740	0.89	0.97
250	0.85	0.93	750	0.89	0.96
260	0.87	0.94	760	0.88	0.96
270	0.88	0.96	770	0.88	0.96
280	0.89	0.97	780	0.88	0.96
290	0.90	0.97	790	0.88	0.95
300	0.90	0.98	800	0.87	0.95
310	0.90	0.98	850	0.86	0.93
320	0.91	0.99	900	0.83	0.90
330	0.91	0.99	950	0.81	0.88
340	0.91	0.99	1000	0.80	0.87
350	0.91	0.99	1060	0.80	0.87
360	0.91	0.99	1100	0.79	0.86
370	0.91	0.99	1200	0.70	0.76
380	0.91	0.98	1300	0.63	0.69
390	0.90	0.98	1400	0.63	0.69
400	0.89	0.97	1500	0.63	0.68
410	0.88	0.96	1600	0.63	0.69
420	0.86	0.94	1700	0.65	0.71
430	0.82	0.90	1800	0.65	0.71
440	0.77	0.83	1900	0.67	0.73
450	0.68	0.74	2000	0.69	0.75
460	0.56	0.61	2100	0.70	0.76
470	0.44	0.47	2200	0.70	0.76
480	0.35	0.38	2300	0.67	0.73
490	0.30	0.32	2400	0.66	0.72
500	0.24	0.26	2500	0.63	0.68
510	0.19	0.21	2600	0.57	0.62
520	0.15	0.16	2700	0.52	0.56
530	0.12	0.13	2800	0.27	0.29
540	0.11	0.12	2900	0.08	0.09
550	0.11	0.12	3000	0.04	0.04
560	0.09	0.09	3200	0.006	0.007
570	0.06	0.06	3400	0.002	0.002
580	0.05	0.05	3600	0.002	0.002
590	0.05	0.06	3800	0.002	0.002
600	0.06	0.07	4000	$6\cdot10^{-4}$	$6\cdot10^{-4}$
610	0.07	0.08	4200	$2\cdot10^{-4}$	$2\cdot10^{-4}$
620	0.08	0.09	4400	$4\cdot10^{-4}$	$4\cdot10^{-4}$
630	0.10	0.11	4600	$6\cdot10^{-4}$	$6\cdot10^{-4}$
640	0.15	0.16	4800	$5\cdot10^{-4}$	$5\cdot10^{-4}$
650	0.25	0.27	5000	$6\cdot10^{-4}$	$7\cdot10^{-4}$
660	0.40	0.43	5200	$2\cdot10^{-4}$	$2\cdot10^{-4}$
670	0.57	0.62			
680	0.71	0.78			
690	0.80	0.87			