

Title: Colour Glass Filter (Bandpass)
Material / Specification: Schott UG11 - 330nm
Range / Description: 330FCS

SCHOTT
 glass made of ideas

Reflection factor

P_d	0.91
Bubble content	
Bubble class	2
Chemical resistance	
FR class	0
SR class	3.0
AR class	2.2

Density

ρ [g/cm ³]	2.92
Transformation temperature	
T_g [°C]	545
Thermal expansion	
$\alpha_{-30/+70^\circ\text{C}}$ [10 ⁻⁶ /K]	7.8
$\alpha_{20/300^\circ\text{C}}$ [10 ⁻⁶ /K]	9.0
Temperature coefficient	
T_k [nm/°C]	

Per DIN 58191 **BP 324/112**
Per DIN 58191 **BP 720/57**

Ionically colored glass

Limit values of τ_i

for thickness $d = 1$ mm

Wave-length [nm]	Limits	Value from catalog curve
254	≥ 0.06	0.13
334	≥ 0.90	0.93
405	≤ 0.001	$2 \cdot 10^{-4}$
694	≤ 0.26	0.18
725	≤ 0.32	0.27

Refractive index n

λ [nm]	Element	n
365	Hg	1.59
587.6	He	1.56

Tristimulus values

	d [mm]	x	y	Y	λ_d [nm]	P_e
A	1					
2856	2					
K	3					
	5					
	1					
3200	2					
K	3					
	5					
	1					
D_{65}	2					
	3					
	5					

Application notes

Band pass filter

[!!]

Long-term changes in the polished surface are possible

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



Tel: +44 (0) 1622 859444
 Fax: +44 (0) 1622 859555
 info@knightoptical.co.uk
 http://www.knightoptical.co.uk

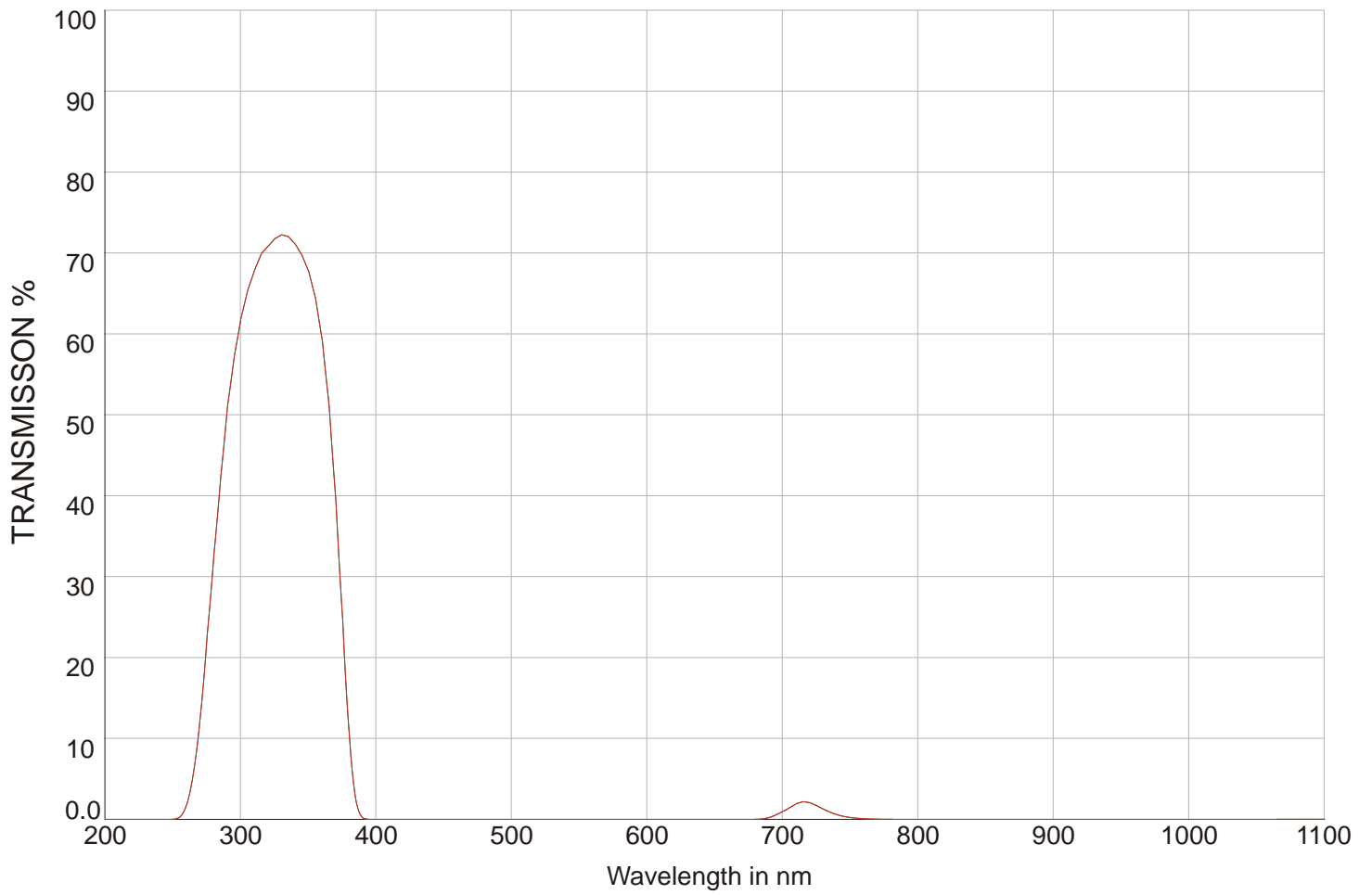
Transmittance τ and internal transmittance $\tau_i = 1$ mm

λ [nm]	τ	τ_i	λ [nm]	τ	τ_i
200	$< 1 \cdot 10^{-5}$	$< 1 \cdot 10^{-5}$	700	0.20	0.22
210	$< 1 \cdot 10^{-5}$	$< 1 \cdot 10^{-5}$	710	0.25	0.28
220	$< 1 \cdot 10^{-5}$	$< 1 \cdot 10^{-5}$	720	0.26	0.28
230	$< 1 \cdot 10^{-5}$	$< 1 \cdot 10^{-5}$	730	0.22	0.24
240	$6 \cdot 10^{-4}$	$6 \cdot 10^{-4}$	740	0.17	0.19
250	0.05	0.06	750	0.12	0.14
260	0.25	0.28	760	0.09	0.10
270	0.47	0.52	770	0.06	0.07
280	0.65	0.71	780	0.04	0.05
290	0.75	0.83	790	0.03	0.03
300	0.80	0.88	800	0.02	0.02
310	0.83	0.91	850	0.007	0.008
320	0.84	0.92	900	0.005	0.006
330	0.84	0.93	950	0.009	0.01
340	0.84	0.92	1000	0.02	0.02
350	0.82	0.91	1060	0.04	0.04
360	0.79	0.87	1100	0.04	0.05
370	0.69	0.76	1200	0.02	0.02
380	0.44	0.48	1300	0.005	0.005
390	0.11	0.12	1400	0.005	0.005
400	0.004	0.004	1500	0.004	0.004
410	$< 1 \cdot 10^{-5}$	$< 1 \cdot 10^{-5}$	1600	0.005	0.005
420	$< 1 \cdot 10^{-5}$	$< 1 \cdot 10^{-5}$	1700	0.006	0.007
430	$< 1 \cdot 10^{-5}$	$< 1 \cdot 10^{-5}$	1800	0.006	0.007
440	$< 1 \cdot 10^{-5}$	$< 1 \cdot 10^{-5}$	1900	0.007	0.008
450	$< 1 \cdot 10^{-5}$	$< 1 \cdot 10^{-5}$	2000	0.009	0.01
460	$< 1 \cdot 10^{-5}$	$< 1 \cdot 10^{-5}$	2100	0.02	0.02
470	$< 1 \cdot 10^{-5}$	$< 1 \cdot 10^{-5}$	2200	0.03	0.03
480	$< 1 \cdot 10^{-5}$	$< 1 \cdot 10^{-5}$	2300	0.05	0.05
490	$< 1 \cdot 10^{-5}$	$< 1 \cdot 10^{-5}$	2400	0.05	0.06
500	$< 1 \cdot 10^{-5}$	$< 1 \cdot 10^{-5}$	2500	0.06	0.07
510	$< 1 \cdot 10^{-5}$	$< 1 \cdot 10^{-5}$	2600	0.06	0.07
520	$< 1 \cdot 10^{-5}$	$< 1 \cdot 10^{-5}$	2700	0.06	0.07
530	$< 1 \cdot 10^{-5}$	$< 1 \cdot 10^{-5}$	2800	0.03	0.03
540	$< 1 \cdot 10^{-5}$	$< 1 \cdot 10^{-5}$	2900	0.005	0.005
550	$< 1 \cdot 10^{-5}$	$< 1 \cdot 10^{-5}$	3000	0.002	0.002
560	$< 1 \cdot 10^{-5}$	$< 1 \cdot 10^{-5}$	3200	$4 \cdot 10^{-4}$	$4 \cdot 10^{-4}$
570	$< 1 \cdot 10^{-5}$	$< 1 \cdot 10^{-5}$	3400	$2 \cdot 10^{-4}$	$2 \cdot 10^{-4}$
580	$< 1 \cdot 10^{-5}$	$< 1 \cdot 10^{-5}$	3600	$3 \cdot 10^{-4}$	$3 \cdot 10^{-4}$
590	$< 1 \cdot 10^{-5}$	$< 1 \cdot 10^{-5}$	3800	$3 \cdot 10^{-4}$	$3 \cdot 10^{-4}$
600	$< 1 \cdot 10^{-5}$	$< 1 \cdot 10^{-5}$	4000	$9 \cdot 10^{-5}$	$1 \cdot 10^{-4}$
610	$< 1 \cdot 10^{-5}$	$< 1 \cdot 10^{-5}$	4200	$4 \cdot 10^{-5}$	$4 \cdot 10^{-5}$
620	$< 1 \cdot 10^{-5}$	$< 1 \cdot 10^{-5}$	4400	$9 \cdot 10^{-5}$	$1 \cdot 10^{-4}$
630	$< 1 \cdot 10^{-5}$	$< 1 \cdot 10^{-5}$	4600	$9 \cdot 10^{-5}$	$1 \cdot 10^{-4}$
640	$< 1 \cdot 10^{-5}$	$< 1 \cdot 10^{-5}$	4800	$9 \cdot 10^{-5}$	$1 \cdot 10^{-4}$
650	$< 1 \cdot 10^{-5}$	$< 1 \cdot 10^{-5}$	5000	$2 \cdot 10^{-4}$	$2 \cdot 10^{-4}$
660	$4 \cdot 10^{-4}$	$4 \cdot 10^{-4}$	5200	$5 \cdot 10^{-5}$	$5 \cdot 10^{-5}$
670	0.007	0.008			
680	0.05	0.05			
690	0.13	0.14			

Title: Colour Glass Filter (Bandpass)
Material / Specification: Schott UG11 - 330nm
Range / Description: 330FCS



KNIGHT OPTICAL
Tel: +44 (0) 1622 859444
Fax: +44 (0) 1622 859555
info@knightoptical.co.uk
<http://www.knightoptical.co.uk>



INTERNAL TRANSMITTANCE FOR 3MM THICK