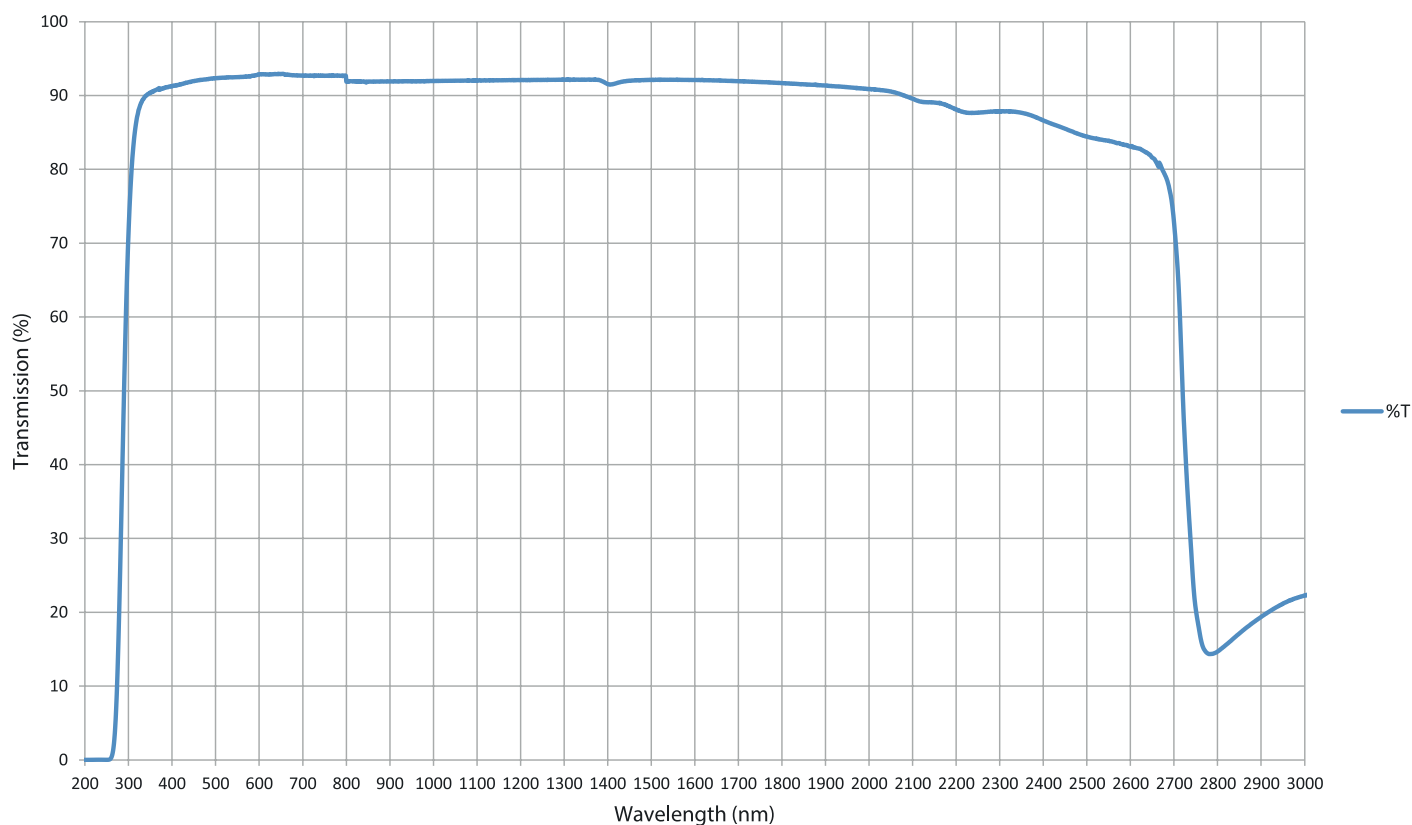


Colour glass filter

Material / Specification: 280nm longpass (WG280 equivalent)

Range / Description: 280FCS



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Reflection factor		Density			
P_d	0.92	ρ [g/cm ³]	2.51		
Bubble content		Transformation temperature			
Bubble class	0	T_g [°C]	563	Per DIN 58191	LP 280
Chemical resistance		Thermal expansion		Per DIN 58191	
FR class	0	$\alpha_{-30/+70^\circ\text{C}}$ [10 ⁻⁶ /K]	7.0		
SR class	1	$\alpha_{20/300^\circ\text{C}}$ [10 ⁻⁶ /K]	8.3		
AR class	2.0	Temperature coefficient			
		T_k [nm/°C]	0.04	Base glass	

Tolerances for long pass filters for thickness d = 2 mm				Transmittance τ and internal transmittance $\tau_i = 2$ mm					
λ_C ($\tau_i = 0,5$ mm) [nm]				λ [nm]	τ	τ_i	λ [nm]	τ	τ_i
λ_C ($\tau_i = 0,5$ mm) [nm]	280+5/-10			200	<1·10 ⁻⁵	<1·10 ⁻⁵	700	0.92	1.00
λ_S ($\tau_{iS} = 1 \cdot 10^{-5}$) [nm]	230			210	<1·10 ⁻⁵	<1·10 ⁻⁵	710	0.92	1.00
λ_P ($\tau_{iP} = 0.99$) [nm]	350			220	<1·10 ⁻⁵	<1·10 ⁻⁵	720	0.92	1.00
				230	<1·10 ⁻⁵	<1·10 ⁻⁵	730	0.92	1.00
				240	<1·10 ⁻⁵	<1·10 ⁻⁵	740	0.92	1.00
				250	8·10 ⁻⁴	9·10 ⁻⁴	750	0.92	1.00
				260	0.03	0.03	760	0.92	1.00
				270	0.20	0.22	770	0.92	1.00
				280	0.47	0.52	780	0.92	1.00
				290	0.68	0.74	790	0.92	1.00
				300	0.79	0.86	800	0.92	1.00
				310	0.85	0.92	850	0.92	1.00
				320	0.88	0.96	900	0.92	1.00
				330	0.90	0.98	950	0.92	1.00
				340	0.91	0.99	1000	0.92	1.00
				350	0.91	0.99	1060	0.92	1.00
				360	0.92	1.00	1100	0.92	1.00
				370	0.92	1.00	1200	0.92	1.00
				380	0.92	1.00	1300	0.92	1.00
				390	0.92	1.00	1400	0.92	1.00
				400	0.92	1.00	1500	0.92	1.00
				410	0.92	1.00	1600	0.92	1.00
				420	0.92	1.00	1700	0.92	1.00
				430	0.92	1.00	1800	0.92	1.00
				440	0.92	1.00	1900	0.92	1.00
				450	0.92	1.00	2000	0.91	0.99
				460	0.92	1.00	2100	0.90	0.98
				470	0.92	1.00	2200	0.89	0.97
				480	0.92	1.00	2300	0.88	0.96
				490	0.92	1.00	2400	0.87	0.95
				500	0.92	1.00	2500	0.86	0.94
				510	0.92	1.00	2600	0.84	0.91
				520	0.92	1.00	2700	0.75	0.81
				530	0.92	1.00	2800	0.20	0.22
				540	0.92	1.00	2900	0.27	0.29
				550	0.92	1.00	3000	0.29	0.32
				560	0.92	1.00	3200	0.28	0.30
				570	0.92	1.00	3400	0.23	0.25
				580	0.92	1.00	3600	0.15	0.16
				590	0.92	1.00	3800	0.17	0.18
				600	0.92	1.00	4000	0.13	0.14
				610	0.92	1.00	4200	0.06	0.07
				620	0.92	1.00	4400	0.02	0.02
				630	0.92	1.00	4600	<1·10 ⁻⁵	<1·10 ⁻⁵
				640	0.92	1.00	4800	<1·10 ⁻⁵	<1·10 ⁻⁵
				650	0.92	1.00	5000	<1·10 ⁻⁵	<1·10 ⁻⁵
				660	0.92	1.00	5200	<1·10 ⁻⁵	<1·10 ⁻⁵
				670	0.92	1.00			
				680	0.92	1.00			
				690	0.92	1.00			

Refractive index n			
λ [nm]	Element	n	
296.7	Hg	1.55	
587.6	He	1.52	
1014	Hg	1.51	

Tristimulus values						
	d	x	y	Y	λ_d [nm]	P_e
	[mm]					
A	1					
2856	2					
K	3					
	5					
	1					
3200	2					
K	3					
	5					
	1					
D ₆₅	2					
	3					
	5					

Application notes
Long pass filter