Title: Colour Glass Filter (Shortpass)
Material / Specification: Hoya B-410 – 538nm
Range / Description: 538CS

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

B-410

Catalog Thickness t= 2.5 mm | Reflection Factor P_i=0.930 | Diagram-2

Transmittance (T) & Internal Transmittance (τ) units:(%)

λ_{nm}	200	210	220	230	240	250	260	270	280	290	300	310	320	330	340	350	360	370	380	390	400	410	420	430	440
T							.44	3.8	10.9	21.2	34.5	48.8	61.2	71.9	79.6	84.5	87.8	89.0	90.1	91.0	91.4	91.5	91.5	91.4	90.4
τ							.47	4.1	11.7	22.8	37.1	52.5	65.8	77.3	85.6	90.9	94.4	95.7	96.9	97.8	98.3	98.4	98.4	98.3	97.2
λ_{nm}	450	460	470	480	490	500	510	520	530	540	550	560	570	580	590	600	610	620	630	640	650	660	670	680	690
T	89.4	89.0	87.8	85.0	80.7	75.4	68.9	61.0	52.1	43.9	33.6	24.0	16.7	10.7	6.7	3.0	1.0	.50	.39	.42	.28	.12	.13	.17	.17
τ	96.1	95.7	94.4	91.4	86.8	81.1	74.1	65.6	56.0	47.2	36.1	25.8	18.0	11.5	7.2	3.2	1.1	.54	.42	.45	.30	.13	.14	.18	.18
λ_{nm}	700	710	720	730	740	750	800	850	900	950	1,000	1,100	1,200	1,300	1,400	1,500	1,600	1,700	1,800	1,900	2,000	2,100	2,200	2,300	2,400
T	.40	1.8	8.9	25.0	50.0	73.0	92.8	92.5	92.1	91.6	90.6	87.3	81.5	71.2	53.0	37.7	40.2	36.5	34.1	36.0	38.5	42.2	52.0	63.2	68.0
τ	.43	1.9	9.6	26.9	53.8	78.5	99.8	99.5	99.0	98.5	97.4	93.9	87.6	76.6	57.0	40.5	43.2	39.2	36.7	38.7	41.4	45.4	55.9	68.0	73.1

Refractive Indices

Symbol	i	h	g	F′	F	e	d	D	C′	C	r	A′	t
λ_{nm}	365.0	404.7	435.8	480.0	486.1	546.1	587.6	589.3	643.8	656.3	706.5	768.2	1,014.0
n	1.486	1.480	1.477	1.474	1.473	1.470	1.468	1.468	1.467	1.466			

Abbe-Number

$$\nu_d = \frac{n_d - 1}{n_F - n_C} = 67$$

Color Specifications

	x	y	Y	λ_d	P_e
A	.194	.351	23.7	491	62
C	.161	.199	32.3	481	67
D_{65}	.161	.215	32.8	482	66

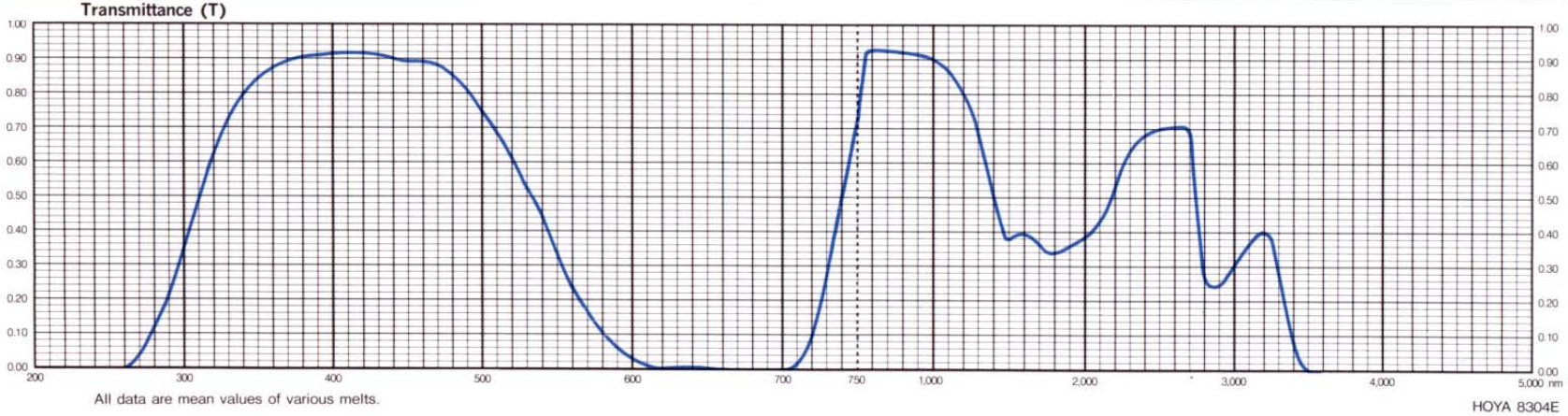
Properties

Chemical		Thermal				Mechanical		Other
D_W	D_A	T_θ	T_s	$\alpha_{-30/70}$	$\alpha_{100/300}$	H_K	F_A	S
3	4	410	500	70	79	420	120	2.27

Tolerances of Transmittance (T)

Wavelength for Max. Transmittance	Maximum Transmittance	Less than 1% Wavelength at Short-wave Side	Less than 5% Wavelength at Long-wave Side
λT_{max} (nm)	T_{max} (%)	$\lambda s1$ (nm)	$\lambda l5$ (nm)
410 ± 5	91 ± 3	250	600

Transmittance (T)



All data are mean values of various melts.

HOYA 8304E