

# Blue Filter

**B-440**

Catalog Thickness  $t = 2.5$  mm

Reflection Factor  $P_d = 0.911$

Diagram-2

Transmittance (T) & Internal Transmittance ( $\tau$ ) units: (%)

$\lambda_{nm}$	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																	.06	2.0	9.9	20.2	29.3	37.3	43.4	47.5	49.7
$\tau$																	.07	2.2	10.9	22.0	32.2	40.9	47.6	52.1	54.6
$\lambda_{nm}$	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	49.7	46.9	38.3	26.5	15.4	8.9	4.3	2.0	.80	.56	.67	.56	.31	.09	.03	.02	.02	.02	.02	$9 \cdot 10^{-3}$	$5 \cdot 10^{-3}$	.01	.04	.16	.66
$\tau$	54.6	51.5	42.0	29.1	16.9	9.8	4.7	2.2	.88	.61	.74	.61	.34	.10	.03	.02	.02	.02	.02	.01	$5 \cdot 10^{-3}$	.01	.04	.18	.72
$\lambda_{nm}$	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	2.0	2.5	2.5	2.4	2.2	2.1	2.1	2.7	3.6	5.1	7.2	10.5	8.9	9.2	12.0	12.1	16.6	18.5	21.0	30.8	42.0	50.6	57.2	63.2	66.5
$\tau$	2.2	2.7	2.7	2.6	2.4	2.3	2.3	3.0	4.0	5.6	7.9	11.5	9.8	10.1	13.2	13.3	18.2	20.3	23.1	33.8	46.1	55.5	62.8	69.4	73.0

Refractive Indices

Symbol	i	h	g	F'	F	e	d	D	C'	C	r	A'	t
$\lambda_{nm}$	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			1.552										

Abbe-Number

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

Color Specifications

	x	y	Y	$\lambda_d$	$P_e$
A	.147	.079	1.4	469	94
C	.149	.048	2.9	462	95
D <sub>65</sub>	.148	.050	2.8	463	95

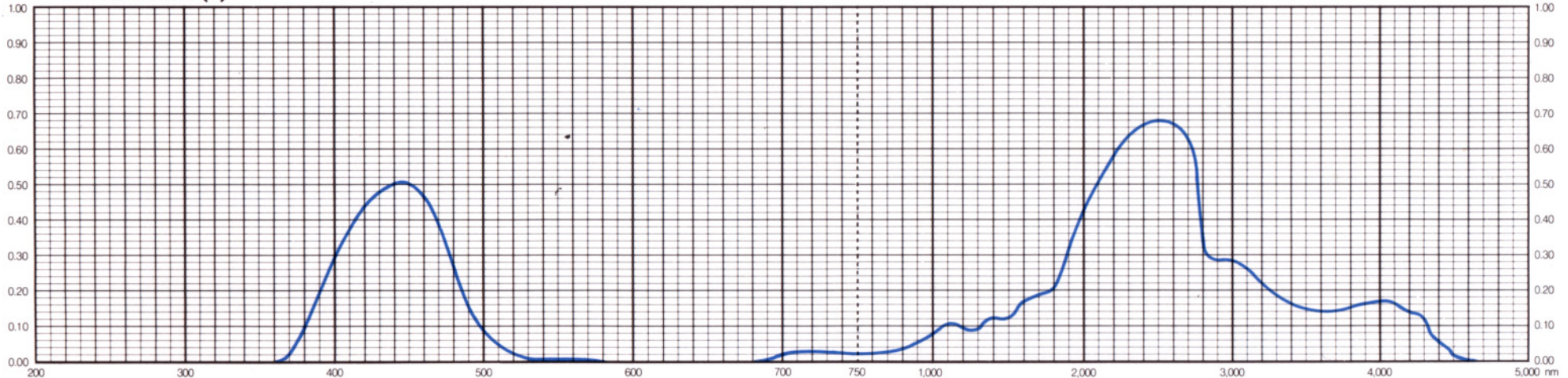
Properties

Chemical		Thermal				Mechanical		Other
D <sub>w</sub>	D <sub>A</sub>	T <sub>g</sub>	T <sub>s</sub>	$\alpha_{-30/70}$	$\alpha_{100/300}$	H <sub>K</sub>	F <sub>A</sub>	S
1	1	480	535	90	105	530	110	2.70

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
$\lambda T_{max}$ (nm)	T <sub>max</sub> (%)	$\lambda s1$ (nm)	$\lambda /5$ (nm)
440 ± 5	47 ± 3	350	520

Transmittance (T)



All data are mean values of various melts.

HOYA 8304E