Heat Absorbing Filter

HA-50

Catalog Thickness t= 3.0 mm | Reflection Factor P_d=0.917 | Diagram-7

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							$3\cdot10^{-3}$	.19	2.0	8.9	24.8	45.2	63.5	76.0	82.7	85.5	87.9	88.8	89.0	88.9	87.7	87.0	86.6	86.2	86.4
τ							$3\cdot10^{-3}$	.21	2.2	9.7	27.0	49.3	69.2	82.9	90.2	93.2	95.9	96.8	97.1	96.9	95.6	94.9	94.4	94.0	94.2
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	86.7	86.7	86.6	87.0	87.3	87.1	87.1	87.1	87.0	87.0	87.2	87.3	87.3	86.9	86.4	85.5	84.0	82.6	80.6	78.5	76.2	73.2	70.2	67.0	63.2
τ	94.5	94.5	94.4	94.9	95.2	95.0	95.0	95.0	94.9	94.9	95.1	95.2	95.2	94.8	94.2	93.2	91.6	90.1	87.9	85.6	83.1	79.8	76.6	73.1	68.9
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	59.8	56.2	53.2	50.3	47.5	44.8	27.7	12.8	4.8	1.9	.8	.3	.2	.2	.5	.5	1.6	2.2	2.5	2.2	1.8	1.6	1.3	1.5	2.0
τ	65.2	61.3	58.0	54.9	51.8	48.9	30.2	14.0	5.2	2.1	.9	.3	.2	.2	.5	.5	1.7	2.4	2.7	2.4	2.0	1.7	1.4	1.6	2.2

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	1.542	1.536	1.533	1.530	1.529	1.526	1.524	1.524	1.522	1.521	1.520	1.517	

Abbe-Number

$$\nu_d = \frac{n_d - 1}{n_F - n_C} = 69$$

Color Specifications

	x	y	Y	λ_d	P_e
A	.441	.411	85.4	505	1
C	.306	.317	86.1	493	1
D_{65}	.309	.330	86.2	495	1

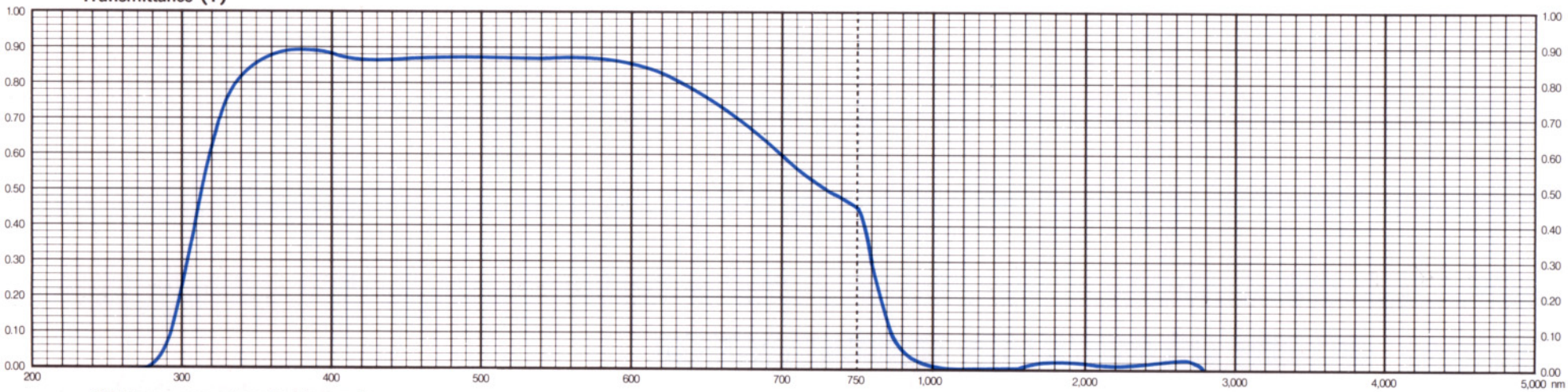
Properties

Chemical		Thermal				Mechanical		Other
D_W	D_A	T_g	T_s	$\alpha_{-30/70}$	$\alpha_{100/300}$	H_K	F_A	S
1	1	585	645	60	66	570	140	2.51

Tolerances of Transmittance (T)

Transmittance at 750 nm	Transmittance at 1,000 nm	Average Transmittance at 400 nm–700 nm
T_{750} (%)	$T_{1,000}$ (%)	Tav (%)
< 55	< 3	80 ± 5

Transmittance (T)



All data are mean values of various melts.

HOYA 8304E