

Multiband Calibration Filter (Didymium)

V-30

Catalog Thickness t = 2.5 mm

Reflection Factor $P_d = 0.877$

Diagram-10

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					.04	.67	3.0	8.1	13.0	15.3	17.0	32.6	38.0	7.5	26.0	.62	1.0	80.0	82.0	85.0	86.2	86.4	77.0	25.0	78.0
τ					.05	.76	3.3	9.2	14.8	17.4	19.4	37.2	43.3	8.6	29.6	.71	1.1	91.2	93.5	96.9	98.3	98.5	87.8	28.5	88.9
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	71.0	27.3	25.5	25.0	70.2	27.0	1.1	1.0	.66	36.0	68.0	56.0	.41	.04	.06	4.0	70.0	66.0	65.0	78.6	85.6	81.3	44.0	20.5	49.0
τ	81.0	31.1	29.1	28.5	80.0	30.8	1.3	1.1	.75	41.0	77.5	63.9	.47	.05	.07	4.6	79.8	75.3	74.1	89.6	97.6	92.7	50.2	23.4	55.9
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	74.3	75.0	58.0	.18	.07	.05	.07	55.0	27.5	87.6	87.6	87.6	87.6	87.6	87.6	84.8	57.6	61.8	84.3	87.6	87.6	85.0	75.8	25.0	3.5
τ	84.7	85.5	66.1	.21	.08	.06	.08	62.7	31.4	99.9	99.9	99.9	99.9	99.9	99.9	96.7	65.7	70.5	96.1	99.9	99.9	96.9	86.4	28.5	4.0

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	1.719	1.710	1.704	1.698	1.697	1.691	1.688	1.688	1.685	1.684	1.682	1.680	1.674

Abbe-Number

$$\nu_d = \frac{n_d - 1}{n_F - n_C} = 54$$

Color Specifications

	x	y	Y	λ_d	P_e
A	.486	.337	30.5	- 547	32
C	.306	.229	28.7	- 554	34
D ₆₅	.312	.238	28.1	- 552	35

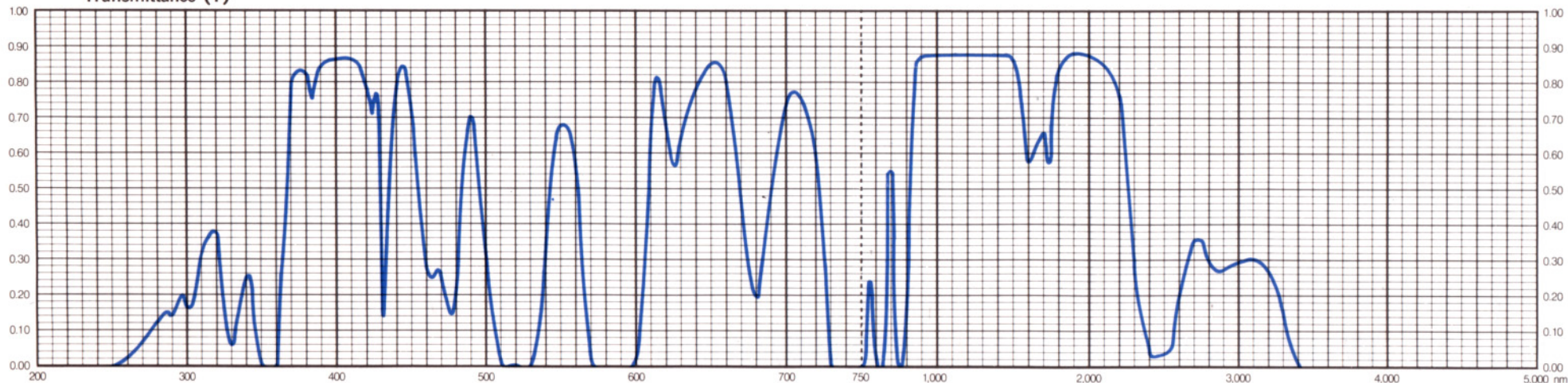
Properties

Chemical		Thermal				Mechanical		Other
D _w	D _A	T _g	T _s	$\alpha_{-30/70}$	$\alpha_{100/300}$	H _K	F _A	S
1	4	615	650	60	70	660	70	3.64

Tolerances of Transmittance (T)

Transmittance at 550 nm	Transmittance at 586 nm
T ₅₅₀ (%)	T ₅₈₆ (%)
68 ± 3	< 1

Transmittance (T)



All data are mean values of various melts.