

# Color Compensating Filter (Cyan)

**C-500**

Catalog Thickness t = 1.0 mm

Reflection Factor P<sub>d</sub> = 0.918

Diagram-5

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

λ <sub>nm</sub>	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	1.2	9.3	27.8	48.5	63.2	72.2	77.4	80.4	82.3	83.6	84.6	85.4	86.2	86.7
τ											.04	1.3	10.1	30.3	52.8	68.8	78.6	84.3	87.6	89.7	91.1	92.2	93.0	93.9	94.4
λ <sub>nm</sub>	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	87.2	87.7	88.1	88.3	88.5	88.6	88.6	88.3	87.8	86.6	84.7	82.3	78.9	74.4	69.3	63.2	56.7	50.0	43.6	37.3	31.6	25.6	20.7	16.5	13.2
τ	95.0	95.5	96.0	96.2	96.4	96.5	96.5	96.2	95.6	94.3	92.3	89.7	85.9	81.0	75.5	68.8	61.8	54.5	47.5	40.6	34.4	27.9	22.5	18.0	14.4
λ <sub>nm</sub>	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	10.5	8.9	7.6	6.3	5.3	4.3	2.1	1.4	1.4	1.6	2.0	4.2	8.7	15.6	24.7	35.2	45.6	54.6	61.8	67.5	71.5	74.0	72.8	73.3	75.0
τ	11.4	9.7	8.3	6.9	5.8	4.7	2.3	1.5	1.5	1.7	2.2	4.6	9.5	17.0	26.9	38.3	49.7	59.5	67.3	73.5	77.9	80.6	79.3	79.8	81.7

Refractive Indices

Symbol	i	h	g	F'	F	e	d	D	C'	C	r	A'	t
λ <sub>nm</sub>	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	1.539	1.533	1.529	1.526	1.525	1.522	1.520	1.520	1.518	1.518			

Abbe-Number

$$v_d = \frac{n_d - 1}{n_F - n_C} = 74$$

Color Specifications

	x	y	Y	λ <sub>d</sub>	P <sub>e</sub>
A	.393	.425	72.3	500	12
C	.271	.312	77.1	490	15
D <sub>65</sub>	.274	.326	77.4	491	14

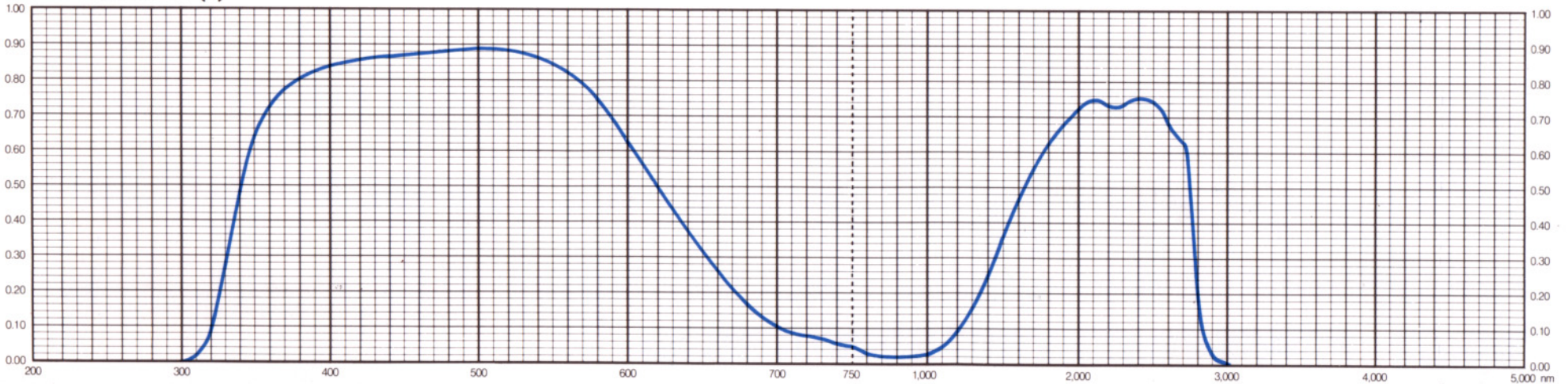
Properties

Chemical		Thermal				Mechanical		Other
D <sub>w</sub>	D <sub>A</sub>	T <sub>g</sub>	T <sub>s</sub>	α <sub>-30/70</sub>	α <sub>100/300</sub>	H <sub>K</sub>	F <sub>A</sub>	S
1	1	600	665	56	66	550	130	2.58

Tolerances of Transmittance (T)

Wavelength for Max. Transmittance	Maximum Transmittance	Transmittance at 600 nm	Transmittance at 700 nm
λT <sub>max</sub> (nm)	T <sub>max</sub> (%)	T <sub>600</sub> (%)	T <sub>700</sub> (%)
500 ± 5	90 ± 2	65 ± 3	< 11

Transmittance (T)



All data are mean values of various melts.