

# Infrared Transmitting Filter

**IR-83**

Catalog Thickness  $t = 2.5$  mm

Reflection Factor  $P_d = 0.906$

Diagram-1

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																										
$\tau$																										
$\lambda_{nm}$	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																										
$\tau$																										
$\lambda_{nm}$	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						$2 \cdot 10^{-3}$	2.1	70.0	85.5	87.5	88.5	89.8	90.5													
$\tau$						$2 \cdot 10^{-3}$	2.3	77.3	94.4	96.6	97.7	99.1	99.9													

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							(1.570)						1.558

Abbe-Number

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

Color Specifications

	x	y	Y	$\lambda_d$	$P_e$
A	—	—	—	—	—
C	—	—	—	—	—
$D_{65}$	—	—	—	—	—

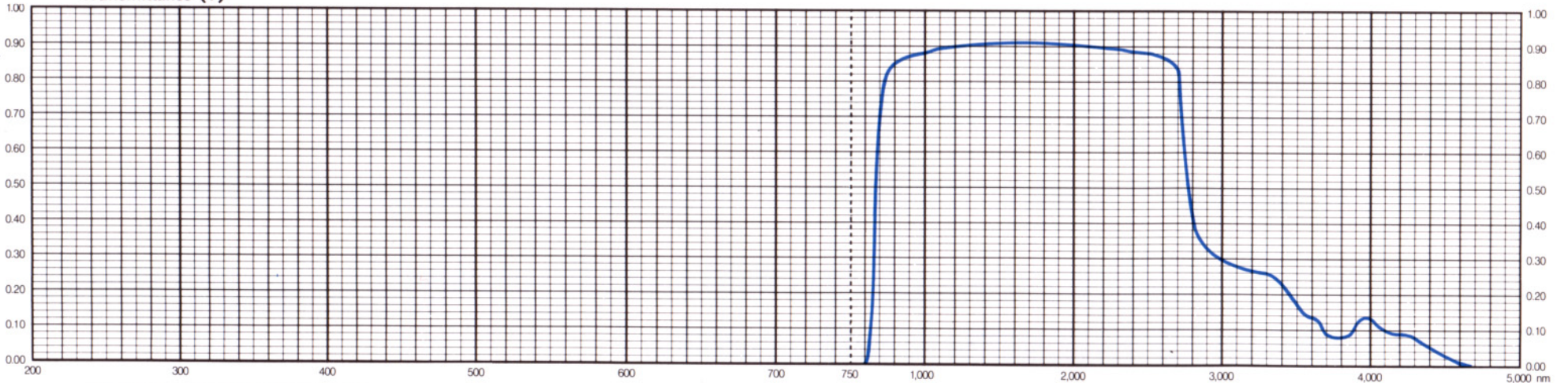
Properties

Chemical		Thermal				Mechanical		Other
$D_w$	$D_A$	$T_B$	$T_S$	$\alpha_{-30/70}$	$\alpha_{100/300}$	$H_K$	$F_A$	S
2	4	500	555	99	109	500	160	2.99

Tolerances of Transmittance (T)

Transition Wavelength	Transition Interval
$\lambda T$ (nm)	$\Delta \lambda$ (nm)
$830 \pm 10$	< 60

Transmittance (T)



All data are mean values of various melts.