

# Infrared Transmitting Filter

**R-70**

Catalog Thickness t= 2.5 mm

Reflection Factor P<sub>d</sub>=0.912

Diagram-1

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																										
τ																										
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																							2·10 <sup>-3</sup>	.04	.87	12.7
τ																							2·10 <sup>-3</sup>	.04	.95	13.9
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	38.7	63.3	77.3	84.0	87.4	89.3	91.0	91.0	91.1																	
τ	42.4	69.4	84.8	92.1	95.8	97.9	99.8	99.8	99.9																	

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							(1.548)				1.543	1.542	1.537

Abbe-Number

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

Color Specifications

	x	y	Y	λ <sub>d</sub>	P <sub>e</sub>
A	—	—	—	—	—
C	—	—	—	—	—
D <sub>65</sub>	—	—	—	—	—

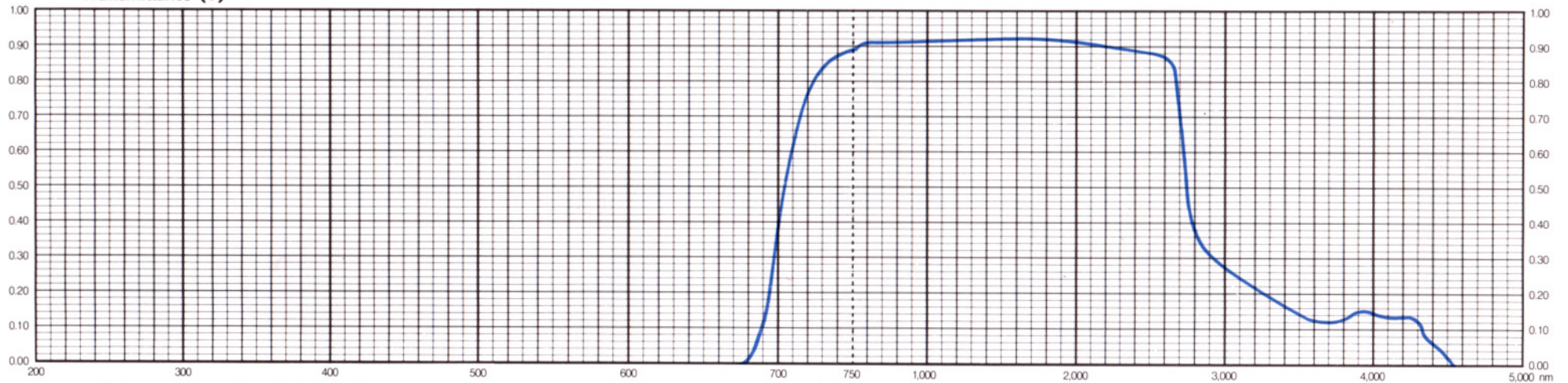
Properties

Chemical		Thermal				Mechanical		Other
D <sub>w</sub>	D <sub>λ</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	3	525	575	98	115	470	160	2.86

Tolerances of Transmittance (T)

Transition Wavelength	Transition Interval	Average High Transmittance
λT(nm)	Δλ(nm)	T <sub>H</sub> (%)
700 ± 10	< 45	> 85

Transmittance (T)



All data are mean values of various melts.