Infrared Band Pass Filter

RT-830

Catalog Thickness t= 2.5 mm | Reflection Factor P_d = 0.911 | Diagram-1

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																									
τ																									
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																								$3\cdot10^{-3}$	.01
τ																								$3\cdot10^{-3}$	.01
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	.36	5.0	22.5	47.5	67.0	77.5	84.6	81.1	74.5	65.0	50.0	25.1	.1								2.4	6.3	10.1	16.7	23.2
τ	.40	5.5	24.7	52.1	73.5	85.1	92.9	89.0	81.8	71.4	54.9	27.6	.1								2.6	6.9	11.1	18.3	25.5

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							(1.549)						1.526

Abbe-Number

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

Color Specifications

	x	y	Y	λ_d	P_e
A	—	—	—	—	—
C	—	—	—	—	—
D_{65}	—	—	—	—	—

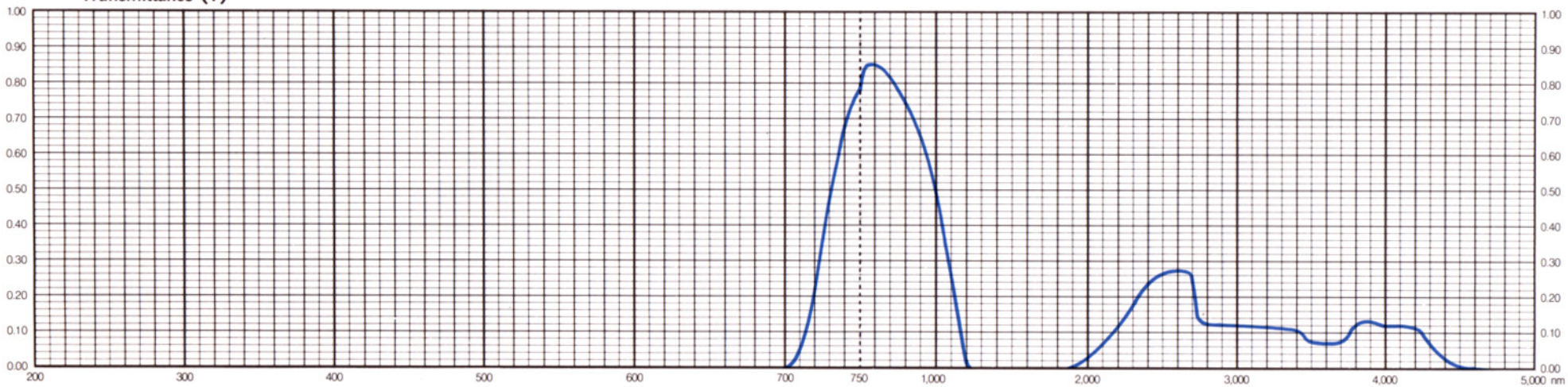
Properties

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	545	605	91	101	510	140	2.75

Tolerances of Transmittance (T)

Transmittance at 830 nm	Transmittance at 700 nm	Transmittance at 1200 nm
T_{830} (%)	T_{700} (%)	T_{1200} (%)
82 ± 5	< 5	< 1.0

Transmittance (T)



All data are mean values of various melts.