

Near infrared absorption (Color Compensating) Filter



OPTICS DIVISION

T1200 ≤ 16

λ (nm)	n	T (%)	τ (%)	A	K ($\times 10^{-4}$)
		0.45	0.45		
2500	1.51590				
2400	1.51702				
2300	1.51811				
2200	1.51916				
2100	1.52018				
2000	1.52117				
1900	1.52213				
1800	1.52307				
1700	1.52400				
1600	1.52491				
1550	1.52537				
1500	1.52582				
1450	1.52628				
1400	1.52675				
1350	1.52722				
1300	1.52769				
1250	1.52819				
1200	1.52870	11.82	12.93	1.97	4.34
1180	1.52891	10.40	11.37	2.10	4.54
1160	1.52912	8.94	9.78	2.24	4.77
1140	1.52934	7.63	8.34	2.40	5.01
1120	1.52956	6.47	7.08	2.56	5.25
1100	1.52978	5.47	5.98	2.72	5.48
1080	1.53002	4.60	5.03	2.89	5.71
1060	1.53025	3.83	4.19	3.06	5.95
1040	1.53050	3.17	3.47	3.24	6.18
1020	1.53075	2.62	2.86	3.43	6.41
1000	1.53101	2.15	2.35	3.62	6.63
990	1.53114	1.94	2.12	3.72	6.74
980	1.53128	1.76	1.92	3.81	6.85
970	1.53141	1.59	1.74	3.91	6.95
960	1.53155	1.45	1.58	4.00	7.04
950	1.53170	1.32	1.44	4.09	7.12
940	1.53184	1.20	1.31	4.18	7.20
930	1.53199	1.10	1.20	4.27	7.27
920	1.53214	1.01	1.10	4.35	7.33
910	1.53230	0.93	1.02	4.43	7.39
900	1.53245	0.86	0.94	4.50	7.43
890	1.53262	0.81	0.88	4.57	7.44
880	1.53278	0.77	0.84	4.61	7.44
870	1.53295	0.74	0.81	4.65	7.41
860	1.53312	0.72	0.79	4.67	7.37
850	1.53330	0.72	0.78	4.68	7.29
840	1.53348	0.72	0.79	4.68	7.20
830	1.53367	0.72	0.79	4.67	7.11
820	1.53386	0.76	0.83	4.62	6.94
810	1.53405	0.80	0.88	4.57	6.78
800	1.53426	0.89	0.97	4.47	6.56
790	1.53446	1.00	1.10	4.35	6.30
780	1.53468	1.16	1.27	4.22	6.03
770	1.53490	1.35	1.48	4.07	5.74
760	1.53512	1.64	1.80	3.88	5.40
750	1.53536	2.03	2.22	3.67	5.05
740	1.53560	2.55	2.79	3.45	4.68
730	1.53585	3.26	3.57	3.22	4.30
720	1.53611	4.25	4.65	2.96	3.91
710	1.53637	5.58	6.11	2.70	3.51
700	1.53665	7.27	7.96	2.44	3.13

[illegible]

Specific Gravity	
d	3.07

Chemical Properties	
D_W	1
D_A	5
T_{Blue}	
D_{NaOH}	
D_{STPP}	
D_0	
D_H	

Thermal Properties	
$T_g (^{\circ}\text{C})$	409
$T_s (^{\circ}\text{C})$	452
$T_{10^{14.5}} (^{\circ}\text{C})$	
$T_{10^{13}} (^{\circ}\text{C})$	
$T_{10^{7.6}} (^{\circ}\text{C})$	
$\alpha_{-30/+70^{\circ}\text{C}} (10^{-7}/^{\circ}\text{C})$	
$\alpha_{100/300^{\circ}\text{C}} (10^{-7}/^{\circ}\text{C})$	146
$\lambda \text{ [W/(m}\cdot\text{K)]}$	
$C_p \text{ [kJ/(kg}\cdot\text{K)]}$	

Mechanical Properties	
H_K	370
F_A	530
E (GPa)	73
G (GPa)	29
μ	0.27
σ_b (MPa)	

Constants of dispersion formula			
A_0	2.3365106	E	0
A_1	-6.5346487	E	-3
A_2	1.4448851	E	-2
A_3	-5.1967897	E	-4
A_4	8.5325197	E	-5
A_5	-3.5493059	E	-6

Refractive Index & ν d		
nC	656. 273	1. 53799
nd	588. 562	1. 54064
nF	486. 133	1. 54665
ν d		62. 43

Chromaticity coordinates		
	T	τ
x	0.266	0.266
y	0.322	0.322

Transmittance ratio		
	T	τ
700nm/500nm	0.081	0.081
600nm/500nm	0.662	0.662
400nm/500nm	0.981	0.984

Remarks	

Date:	2025. 11. 10

CD700	Standard Thickness t= 0.45	T50%：613±4	T400 ≥83	T500 ≥87	T600 ≥57	T700 ≤9
						T1200 ≤16

