

TAFD25

904-313

 $n_d = 1.90366$ $\nu_d = 31.32$ (31.315) $n_F - n_C = 0.028857$
 $n_e = 1.91048$ $\nu_e = 31.08$ (31.081) $n_F' - n_C' = 0.029294$

屈折率 Refractive Index		
	λ (nm)	
$n_{1029.6}$	1529.60	1.86291
$n_{1128.64}$	1128.64	1.87180
n_t	1013.98	1.87516
n_s	852.11	1.88152
n_A	768.195	1.88619
n_F	706.519	1.89066
n_C	656.273	1.89526
$n_{C'}$	643.847	1.89657
n_{633}	632.8	1.89781
n_D	589.294	1.90341
n_d	587.562	1.90366
n_e	546.074	1.91048
n_F	486.133	1.92412
n_F'	479.991	1.92587
n_g	435.834	1.94128
n_h	404.656	1.95643
n_i	365.015	1.98458

分散式の定数 Constants of dispersion formula	
A_0	3.4905528
A_1	$-1.6325771 \times 10^{-2}$
A_2	4.1146322×10^{-2}
A_3	2.7189124×10^{-3}
A_4	$-1.8260518 \times 10^{-4}$
A_5	2.0641862×10^{-5}

部分分散 Partial dispersions	
$n_C - n_t$	0.020107
$n_d - n_C$	0.008396
$n_F - n_d$	0.020461
$n_g - n_F$	0.017164
$n_{C'} - n_t$	0.021418
$n_e - n_{C'}$	0.013910
$n_{F'} - n_e$	0.015384
$n_g - n_{F'}$	0.015416

部分分散比 Partial dispersion ratio			
$P_{C,t}$	0.6368	$P'_{C,t}$	0.7311
$P_{d,C}$	0.2910	$P'_{d,C}$	0.2419
$P_{e,d}$	0.2365	$P'_{e,d}$	0.2390
$P_{F,e}$	0.4725	$P'_{F,e}$	0.5252
$P_{g,F}$	0.5948	$P'_{g,F}$	0.5263
$P_{h,g}$	0.5248	$P'_{h,g}$	0.5170
$P_{i,h}$	0.9755	$P'_{i,h}$	0.9609

異常分散性 Anomalous dispersions	
$\Delta P_{C,t}$	0.0046
$\Delta P_{C,A'}$	-0.0006
$\Delta P_{e,d}$	0.0034
$\Delta P_{g,F}$	0.0028
$\Delta P_{i,h}$	0.0366

光弾性定数 Photoelastic Constant	
$B (10^{-12}/\text{Pa})$	1.42

比重 Specific Gravity	
d	4.51

化学的性質 Chemical Properties	
D_W	1
D_A	1
T_{Blue}	1
D_{NaOH}	1
D_{STPP}	1
D_O	1
D_H	1

熱的性質 Thermal Properties	
$T_g (^\circ\text{C})$	655
$T_s (^\circ\text{C})$	707
$T_{10/4.5} (^\circ\text{C})$	634
$T_{10/3} (^\circ\text{C})$	651
$T_{10/7.5} (^\circ\text{C})$	735
$\alpha_{-30/+70} (10^{-7}/^\circ\text{C})$	70
$\alpha_{100/300} (10^{-7}/^\circ\text{C})$	88
$\lambda [W/(m \cdot K)]$	0.820
$C_p [kJ/(kg \cdot K)]$	0.474

機械的性質 Mechanical Properties	
H_K	630(6)
F_A	90
E (GPa)	113
G (GPa)	43.0
μ	0.299
σ_b (MPa)	88

内部透過率 Internal Transmittance				
λ (nm)	τ_{2mm}	τ_{5mm}	τ_{10mm}	
2500	0.936	0.847	0.717	
2400	0.962	0.907	0.822	
2200	0.989	0.973	0.946	
2000	0.998	0.994	0.988	
1800	0.999	0.999	0.999	
1600	0.999	0.999	0.999	
1550	0.999	0.998	0.997	
1500	0.999	0.998	0.996	
1400	0.999	0.999	0.998	
1300	0.999	0.999	0.999	
1200	0.999	0.999	0.998	
1100	0.999	0.999	0.998	
1060	0.999	0.999	0.998	
1050	0.999	0.999	0.998	
1000	0.999	0.999	0.997	
950	0.999	0.998	0.997	
900	0.999	0.998	0.996	
850	0.999	0.998	0.996	
830	0.999	0.998	0.996	
800	0.999	0.999	0.997	
780	0.999	0.999	0.997	
750	0.999	0.998	0.996	
700	0.999	0.997	0.995	
650	0.999	0.997	0.995	
600	0.999	0.998	0.995	
550	0.999	0.998	0.996	
500	0.997	0.993	0.986	
480	0.996	0.990	0.980	
460	0.994	0.984	0.969	
440	0.991	0.977	0.955	
420	0.985	0.962	0.926	
400	0.989	0.924	0.854	
380	0.950	0.880	0.775	
360	0.909	0.787	0.619	
370	0.811	0.593	0.352	
360	0.587	0.264	0.069	
350	0.219	0.023		
340				
330				
320				
310				
300				
290				
280				

屈折率の温度係数 dn/dT ($\times 10^{-6}/^{\circ}\text{C}$)					アッペ数の温度係数 $d\nu/dT$ ($\times 10^{-3}/^{\circ}\text{C}$)								
Temperature Coefficient of Refractive Index					Temperature Coefficient of Abbe-number								
	(℃)	dn/dT										$d\nu/dT$	
		n_h	n_g	n_F	n_F'	n_e	n_d	n_{633}	$n_{C'}$	n_C	n_r	ν_e	ν_d
		404.66	435.84	479.99	486.13	546.07	587.56	632.80	643.85	656.27	706.52	546.07	587.56
dn/dT & $d\nu/dT$ (rel.)	-40 / -20	8.1	6.8	5.5	5.4	4.4	3.9	3.5	3.4	3.4	3.1	-2.1	-2.1
	-20 / 0	8.3	6.9	5.6	5.5	4.4	3.9	3.5	3.5	3.4	3.1	-2.1	-2.2
	0 / 20	8.6	7.1	5.7	5.6	4.5	4.0	3.6	3.5	3.4	3.1	-2.2	-2.2
	20 / 40	8.8	7.3	5.8	5.7	4.6	4.0	3.6	3.5	3.4	3.1	-2.3	-2.3
	40 / 60	9.0	7.4	5.9	5.8	4.6	4.1	3.7	3.6	3.5	3.1	-2.4	-2.4
	60 / 80	9.2	7.6	6.1	5.9	4.7	4.1	3.7	3.6	3.5	3.2	-2.5	-2.5
	80 / 100	9.4	7.7	6.1	6.0	4.7	4.2	3.7	3.6	3.5	3.1	-2.5	-2.5
	100 / 120	9.6	7.8	6.2	6.0	4.7	4.2	3.7	3.6	3.5	3.1	-2.6	-2.6
	120 / 140	9.7	7.9	6.2	6.1	4.7	4.1	3.6	3.5	3.4	3.0	-2.7	-2.7
140 / 150	9.8	7.9	6.2	6.0	4.7	4.1	3.6	3.5	3.3	3.0	-2.7	-2.7	
dn/dT & $d\nu/dT$ (abs.)	-40 / -20	5.5	4.1	2.9	2.7	1.8	1.3	0.9	0.9	0.8	0.5	-2.1	-2.1
	-20 / 0	6.0	4.6	3.3	3.2	2.2	1.7	1.3	1.3	1.2	0.9	-2.2	-2.2
	0 / 20	6.6	5.1	3.8	3.6	2.6	2.1	1.7	1.6	1.5	1.2	-2.2	-2.2
	20 / 40	7.1	5.5	4.1	4.0	2.9	2.4	2.0	1.9	1.8	1.5	-2.3	-2.3
	40 / 60	7.5	5.9	4.5	4.3	3.2	2.6	2.2	2.1	2.0	1.7	-2.4	-2.4
	60 / 80	7.9	6.3	4.7	4.6	3.4	2.8	2.4	2.3	2.2	1.9	-2.5	-2.5
	80 / 100	8.2	6.5	5.0	4.8	3.6	3.0	2.5	2.4	2.3	2.0	-2.5	-2.5
	100 / 120	8.5	6.8	5.1	5.0	3.7	3.1	2.6	2.5	2.4	2.1	-2.6	-2.6
	120 / 140	8.7	6.9	5.3	5.1	3.8	3.2	2.7	2.6	2.5	2.1	-2.7	-2.7
140 / 150	8.9	7.0	5.3	5.1	3.8	3.2	2.7	2.6	2.5	2.1	-2.7	-2.7	

線膨張係数 α ($\times 10^{-7}/^\circ\text{C}$)	
Coefficient of Thermal Expansion	
(°C)	α
-40 / -30	66
-30 / -20	68
-20 / -10	69
-10 / 0	70
0 / 10	71
10 / 20	71
20 / 30	71
30 / 40	71
40 / 50	71
50 / 60	71
60 / 70	71
70 / 80	72
80 / 90	72
90 / 100	73
100 / 110	74
110 / 120	76
120 / 130	78
130 / 140	81
140 / 150	84

440	0.991	0.977	0.955
420	0.985	0.962	0.926
400	0.969	0.924	0.854
390	0.950	0.880	0.775
380	0.909	0.787	0.619
370	0.811	0.593	0.352
360	0.587	0.264	0.069
350	0.219	0.023	
340			
330			
320			
310			
300			
290			
280			

CCI Color Contribution Index	
CCI(G)	2.91
CCI(R)	2.96

冷却速度による屈折率の変化 Difference of refractive indices by cooling rate	
β_C	
β_d	
β_F	
β_g	

備考 Remarks						
硝種対照表 Glass Cross Reference Index						
Glass_Type	TAFD25	N-LASF46B	S-LAH95	J-LASFH13HS	H-ZLAF75B	
Code	904-313	904-313	904-313	904-313	904-314	

Excel File Name : HOYA20230531 (说明书查询) .xlsx