

TAC8P

729-545 $n_d = 1.72916$ $\nu_d = 54.54$ (54.537) $n_F - n_C = 0.013370$
 $n_e = 1.73235$ $\nu_e = 54.31$ (54.308) $n_{F'} - n_{C'} = 0.013485$

屈折率 Refractive Index		
	λ (nm)	
$n_{1529.6}$	1529.60	1.70532
$n_{1128.64}$	1128.64	1.71191
n_t	1013.98	1.71409
n_s	852.11	1.71787
$n_{A'}$	768.195	1.72044
n_r	706.519	1.72277
n_C	656.273	1.72509
$n_{C'}$	643.847	1.72574
n_{633}	632.8	1.72635
n_D	589.294	1.72904
n_d	587.562	1.72916
n_e	546.074	1.73235
n_F	486.133	1.73846
$n_{F'}$	479.991	1.73922
n_g	435.834	1.74575
n_h	404.656	1.75181
n_i	365.015	1.76211

分散式の定数 Constants of dispersion formula	
A_0	2.9312694
A_1	$-1.3849509 \times 10^{-2}$
A_2	2.1679031×10^{-2}
A_3	$-7.9212106 \times 10^{-5}$
A_4	6.6098714×10^{-5}
A_5	$-3.3369837 \times 10^{-6}$

部分分散 Partial dispersions	
$n_C - n_t$	0.011004
$n_d - n_C$	0.004067
$n_F - n_d$	0.009303
$n_g - n_F$	0.007291
$n_{C'} - n_t$	0.011652
$n_e - n_{C'}$	0.006605
$n_{F'} - n_e$	0.006880
$n_g - n_{F'}$	0.006528

部分分散比 Partial dispersion rates			
$P_{C,t}$	0.8230	$P'_{C',t}$	0.8641
$P_{d,C}$	0.3042	$P'_{d,C'}$	0.2535
$P_{e,d}$	0.2383	$P'_{e,d'}$	0.2363
$P_{F,e}$	0.4575	$P'_{F',e'}$	0.5102
$P_{g,F}$	0.5453	$P'_{g,F'}$	0.4841
$P_{h,g}$	0.4534	$P'_{h,g'}$	0.4495
$P_{i,h}$	0.7700	$P'_{i,h'}$	0.7634

異常分散性 Anomalous dispersions	
$\Delta P_{C,t}$	0.0223
$\Delta P_{C,A'}$	0.0052
$\Delta P_{g,d}$	-0.0065
$\Delta P_{g,F}$	-0.0049
$\Delta P_{i,g}$	-0.0350

光弾性定数 Photoelastic Constant	
B ($10^{-12}/\text{Pa}$)	1.48

比重 Specific Gravity	
d	4.05

化学的性質 Chemical Properties	
D_W	1
D_A	4
T_{Blue}	3
D_{NaOH}	1
D_{STPP}	2
D_0	2
D_H	

熱的性質 Thermal Properties	
T_g ($^{\circ}\text{C}$)	679
T_s ($^{\circ}\text{C}$)	707
$T_{10^{14.5}}$ ($^{\circ}\text{C}$)	652
$T_{10^{13}}$ ($^{\circ}\text{C}$)	667
$T_{10^{7.6}}$ ($^{\circ}\text{C}$)	739
α -30/+70 ($10^{-7}/^{\circ}\text{C}$)	56
α 100/300 ($10^{-7}/^{\circ}\text{C}$)	73
λ [W/(m·K)]	0.915
C_p [kJ/(kg·K)]	0.549

機械的性質 Mechanical Properties	
H_K	730 (7)
F_A	60
E (GPa)	122
G (GPa)	48.1
μ	0.273
σ_b (MPa)	102

内部透過率 Internal Transmittance			
λ (nm)	τ 2mm	τ 5mm	τ 10mm
2500	0.851	0.669	0.448
2400	0.896	0.760	0.577
2200	0.967	0.919	0.845
2000	0.991	0.978	0.956
1800	0.997	0.993	0.986
1600	0.999	0.998	0.997
1550	0.997	0.993	0.986
1500	0.997	0.992	0.983
1400	0.996	0.991	0.982
1300	0.999	0.999	0.998
1200	0.999	0.999	0.999
1100	0.999	0.999	0.999
1060	0.999	0.999	0.999
1050	0.999	0.999	0.999
1000	0.999	0.999	0.999
950	0.999	0.999	0.999
900	0.999	0.999	0.999
850	0.999	0.999	0.999
830	0.999	0.999	0.999
800	0.999	0.999	0.999
780	0.999	0.999	0.999
750	0.999	0.999	0.999
700	0.999	0.999	0.999
650	0.999	0.999	0.999
600	0.999	0.999	0.998
550	0.999	0.998	0.995
500	0.999	0.999	0.998
480	0.999	0.999	0.998
460	0.999	0.998	0.997
440	0.999	0.998	0.995
420	0.998	0.996	0.992
400	0.998	0.994	0.989
390	0.996	0.991	0.982
380	0.995	0.987	0.973
370	0.992	0.980	0.960
360	0.987	0.968	0.938
350	0.981	0.953	0.908
340	0.969	0.924	0.853
330	0.953	0.886	0.785
320	0.928	0.830	0.689
310	0.891	0.750	0.562
300	0.859	0.684	0.467
290	0.803	0.577	0.333
280	0.707	0.421	0.178

屈折率の温度係数 dn/dT ($\times 10^{-6}/^{\circ}\text{C}$) Temperature Coefficient of Refractive Index											
アッペ数の温度係数 $d\nu/dT$ ($\times 10^{-3}/^{\circ}\text{C}$) Temperature Coefficient of Abbe-number											
	$(^{\circ}\text{C})$	dn/dT									
		n_h	n_g	$n_{F'}$	n_F	n_e	n_d	n_{633}	$n_{C'}$	n_C	n_r
		404.66	435.84	479.99	486.13	546.07	587.56	632.80	643.85	656.27	706.52
dn/dT & $d\nu/dT$ (rel.)	-40 / -20	4.6	4.2	3.9	3.8	3.5	3.4	3.2	3.2	3.2	3.1
	-20 / 0	4.6	4.2	3.9	3.8	3.5	3.4	3.2	3.2	3.2	3.1
	0 / 20	4.6	4.3	3.9	3.8	3.5	3.4	3.2	3.2	3.2	3.1
	20 / 40	4.7	4.3	3.9	3.9	3.6	3.4	3.3	3.2	3.2	3.1
	40 / 60	4.7	4.4	4.0	3.9	3.6	3.4	3.3	3.3	3.2	3.1
	60 / 80	4.8	4.4	4.0	4.0	3.6	3.5	3.3	3.3	3.3	3.2
	80 / 100	4.8	4.4	4.0	4.0	3.6	3.5	3.3	3.3	3.3	3.2
	100 / 120	4.8	4.4	4.0	4.0	3.6	3.5	3.3	3.3	3.3	3.2
	120 / 140	4.8	4.4	4.0	4.0	3.6	3.4	3.3	3.3	3.2	3.1
	140 / 150	4.8	4.4	4.0	3.9	3.6	3.4	3.3	3.3	3.2	3.1
dn/dT & $d\nu/dT$ (abs.)	-40 / -20	2.2	1.8	1.5	1.5	1.2	1.0	0.9	0.9	0.8	0.8
	-20 / 0	2.5	2.2	1.8	1.8	1.5	1.3	1.2	1.2	1.1	1.1
	0 / 20	2.9	2.5	2.1	2.1	1.8	1.6	1.5	1.5	1.4	1.4
	20 / 40	3.1	2.8	2.4	2.4	2.0	1.9	1.8	1.7	1.6	1.6
	40 / 60	3.4	3.0	2.6	2.6	2.3	2.1	2.0	1.9	1.8	1.8
	60 / 80	3.6	3.2	2.8	2.8	2.4	2.3	2.2	2.1	2.1	2.0
	80 / 100	3.7	3.3	3.0	2.9	2.6	2.4	2.3	2.3	2.2	2.1
	100 / 120	3.9	3.5	3.1	3.0	2.7	2.5	2.4	2.4	2.3	2.2
	120 / 140	3.9	3.5	3.1	3.1	2.8	2.6	2.5	2.4	2.3	2.2
	140 / 150	4.0	3.6	3.2	3.1	2.8	2.6	2.5	2.5	2.4	2.3

線膨張係数 α ($\times 10^{-7}/^{\circ}\text{C}$) Coefficient of Thermal Expansion	
$(^{\circ}\text{C})$	α
-40 / -30	50
-30 / -20	52
-20 / -10	54
-10 / 0	55
0 / 10	56
10 / 20	57
20 / 30	57
30 / 40	57
40 / 50	58
50 / 60	58
60 / 70	58
70 / 80	58
80 / 90	59
90 / 100	59
100 / 110	60
110 / 120	61
120 / 130	62
130 / 140	63
140 / 150	65

着色度 Coloration Code	
$\lambda_{80}(\lambda_{70})/\lambda_5$	360/270
着色度 (内部透過率) Coloration of Internal Transmittance	
$\lambda_{\tau 80}/\lambda_{\tau 5}$	332/270
CCI Color Contribution Index	
CCI (G)	0.23
CCI (R)	0.24

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						
	HOYA	SCHOTT	OHARA	HIKARI	SUMITA	CDGM
Glass_Type	TAC8P	N-LAK34	(S-LAL18)	(J-LAK18)	(K-LaK18)	(H-LaK52)
Code	729-545	729-545	(729-547)	(729-546)	(729-547)	(729-547)
Excel File Name : HOYA20250701M.xlsm						