

TAFD25L

904-313 $n_d = 1.90366$ $\nu_d = 31.32$ (31.316) $n_F - n_C = 0.028856$
 $n_e = 1.91048$ $\nu_e = 31.08$ (31.081) $n_{F'} - n_{C'} = 0.029294$

屈折率 Refractive Index		
	λ (nm)	
$n_{1529.6}$	1529.60	1.86298
$n_{1128.64}$	1128.64	1.87179
n_t	1013.98	1.87513
n_s	852.11	1.88150
$n_{A'}$	768.195	1.88619
n_r	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	1.94131
n_h	404.656	1.95653
n_i	365.015	1.98496

分散式の定数 Constants of dispersion formula	
A_0	3.4892744
A_1	$-1.5818546 \times 10^{-2}$
A_2	4.2076777×10^{-2}
A_3	2.4534904×10^{-3}
A_4	$-1.5625006 \times 10^{-4}$
A_5	2.0463710×10^{-5}

部分分散 Partial dispersions	
$n_C - n_t$	0.020128
$n_d - n_C$	0.008397
$n_F - n_d$	0.020459
$n_g - n_F$	0.017196
$n_{C'} - n_t$	0.021440
$n_e - n_{C'}$	0.013909
$n_{F'} - n_e$	0.015385
$n_g - n_{F'}$	0.015446

部分分散比 Partial dispersion rates	
$P_{C,t}$	0.6975
$P_{d,C}$	0.2910
$P_{e,d}$	0.2365
$P_{F,e}$	0.4725
$P_{g,F}$	0.5959
$P_{h,g}$	0.5274
$P_{i,h}$	0.9850
$P'_{C,t}$	0.7319
$P'_{d,C}$	0.2419
$P'_{e,d}$	0.2329
$P'_{F,e}$	0.5252
$P'_{g,F}$	0.5273
$P'_{h,g}$	0.5195
$P'_{i,h}$	0.9703

異常分散性 Anomalous dispersions	
$\Delta P_{C,t}$	0.0053
$\Delta P_{C,A'}$	-0.0003
$\Delta P_{g,d}$	0.0045
$\Delta P_{g,F}$	0.0040
$\Delta P_{i,g}$	0.0487

光弾性定数 Photoelastic Constant	
B ($10^{-12}/\text{Pa}$)	1.49

比重 Specific Gravity	
d	4.40

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

熱的性質 Thermal Properties	
T_g (°C)	648
T_s (°C)	693
$T_{10^{14.5}}$ (°C)	617
$T_{10^{13}}$ (°C)	641
$T_{10^{7.6}}$ (°C)	724
α -30/+70°C ($10^{-7}/^\circ\text{C}$)	68
α 100/300°C ($10^{-7}/^\circ\text{C}$)	85
λ [W/(m·K)]	0.879
C_p [kJ/(kg·K)]	0.517

機械的性質 Mechanical Properties	
H_K	700 (7)
F_A	60
E (GPa)	126
G (GPa)	48.4
μ	0.300
σ_b (MPa)	

内部透過率 Internal Transmittance			
λ (nm)	τ 2mm	τ 5mm	τ 10mm
2500	0.919	0.809	0.655
2400	0.949	0.876	0.768
2200	0.982	0.955	0.912
2000	0.992	0.980	0.961
1800	0.997	0.992	0.983
1600	0.999	0.997	0.995
1550	0.999	0.998	0.995
1500	0.999	0.997	0.993
1400	0.999	0.999	0.999
1300	0.999	0.999	0.999
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	0.997
650	0.999	0.997	0.994
600	0.996	0.990	0.980
550	0.992	0.979	0.959
500	0.997	0.993	0.986
480	0.996	0.990	0.980
460	0.994	0.985	0.971
440	0.992	0.979	0.959
420	0.986	0.966	0.934
400	0.973	0.935	0.873
390	0.957	0.896	0.803
380	0.919	0.810	0.656
370	0.821	0.610	0.372
360	0.561	0.236	0.056
350	0.136		
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													
	(°C)	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		
dn/dT & $d\nu/dT$ (rel.)	-40 / -20	9.0	7.6	6.3	6.2	5.3	4.9	4.5	4.5	4.4	4.2	-1.8	-1.8		
	-20 / 0	9.4	7.8	6.5	6.4	5.4	5.0	4.7	4.6	4.5	4.2	-1.9	-1.9		
	0 / 20	9.7	8.1	6.7	6.6	5.6	5.1	4.7	4.7	4.6	4.3	-2.0	-2.0		
	20 / 40	10.0	8.4	6.9	6.8	5.7	5.2	4.8	4.7	4.7	4.4	-2.1	-2.1		
	40 / 60	10.3	8.6	7.0	6.9	5.8	5.3	4.9	4.8	4.7	4.4	-2.2	-2.2		
	60 / 80	10.6	8.7	7.1	7.0	5.8	5.3	4.9	4.8	4.7	4.4	-2.3	-2.3		
	80 / 100	10.7	8.8	7.2	7.0	5.8	5.2	4.8	4.7	4.6	4.3	-2.4	-2.4		
	100 / 120	10.9	8.9	7.1	7.0	5.7	5.1	4.7	4.6	4.5	4.1	-2.5	-2.5		
	120 / 140	10.9	8.8	7.0	6.9	5.5	4.9	4.5	4.4	4.3	3.9	-2.6	-2.6		
	140 / 150	10.9	8.7	6.9	6.7	5.4	4.8	4.3	4.2	4.1	3.7	-2.7	-2.6		
dn/dT & $d\nu/dT$ (abs.)	-40 / -20	6.3	4.9	3.7	3.6	2.7	2.3	2.0	1.9	1.8	1.6	-1.8	-1.8		
	-20 / 0	7.1	5.6	4.3	4.2	3.2	2.8	2.4	2.4	2.3	2.1	-1.9	-1.9		
	0 / 20	7.7	6.2	4.8	4.7	3.7	3.2	2.9	2.8	2.7	2.4	-2.0	-2.0		
	20 / 40	8.3	6.7	5.2	5.1	4.0	3.5	3.2	3.1	3.0	2.7	-2.1	-2.1		
	40 / 60	8.8	7.1	5.6	5.4	4.3	3.8	3.4	3.3	3.2	3.0	-2.2	-2.2		
	60 / 80	9.2	7.4	5.8	5.7	4.5	4.0	3.6	3.5	3.4	3.1	-2.3	-2.3		
	80 / 100	9.5	7.6	6.0	5.8	4.6	4.1	3.6	3.5	3.5	3.2	-2.4	-2.4		
	100 / 120	9.8	7.8	6.1	5.9	4.6	4.1	3.6	3.5	3.4	3.1	-2.5	-2.5		
	120 / 140	9.9	7.9	6.1	5.9	4.6	4.0	3.5	3.4	3.3	3.0	-2.6	-2.6		
	140 / 150	10.0	7.9	6.0	5.8	4.5	3.9	3.4	3.3	3.2	2.9	-2.7	-2.7		

線膨張係数 α ($\times 10^{-7}/^\circ\text{C}$)	
Coefficient of Thermal Expansion	
(°C)	α
-40 / -30	64
-30 / -20	65
-20 / -10	66
-10 / 0	67
0 / 10	67
10 / 20	68
20 / 30	68
30 / 40	69
40 / 50	69
50 / 60	70
60 / 70	70
70 / 80	71
80 / 90	71
90 / 100	72
100 / 110	73
110 / 120	73
120 / 130	74
130 / 140	75
140 / 150	77

着色度 Coloration Code	
$\lambda_{80}(\lambda_{70})/\lambda_5$	(400)/360
着色度 (内部透過率) Coloration of Internal Transmittance	
$\lambda_{\tau 80}/\lambda_{\tau 5}$	382/360

CCI Color Contribution Index	
CCI (G)	2.54
CCI (R)	2.71

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	TAFD25L	N-LASF46B	S-LAH95	J-LASFH13HS		H-ZLAF75B
Code	904-313	904-313	904-313	904-313		904-314

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