L-LAH81

Code(d) **806404**

Code(e) **811401**

Refractive Index	n_d	**1.80610**	Abbe Number	v_d	**40.4**	Dispersion	n_F-n_C **0.01995**
		1.806100			40.40		0.019953
Refractive Index	n_e	1.810839	Abbe Number	v_e	40.15	Dispersion	n_F'-$n_{C'}$ 0.020196

Refractive Indicies		
λ(μm)		
n_{2325}	2.32542	1.76087
n_{1970}	1.97009	1.76778
n_{1530}	1.52958	1.77540
n_{1129}	1.12864	1.78271
n_t	1.01398	1.78533
n_s	0.85211	1.79017
$n_{A'}$	0.76819	1.79363
n_r	0.70652	1.79688
n_C	0.65627	1.80018
$n_{C'}$	0.64385	1.80111
n_{He-Ne}	0.6328	1.80199
n_D	0.58929	1.80593
n_d	0.58756	1.80610
n_e	0.54607	1.81084
n_F	0.48613	1.82013
$n_{F'}$	0.47999	1.82131
n_{He-Cd}	0.44157	1.82998
n_g	0.435835	1.83151
n_h	0.404656	1.84125
n_i	0.365015	1.85851

Deviation of Relative Dispersions Δθfrom "Normal"	
$\Delta\theta_{C,t}$	0.0078
$\Delta\theta_{C,A'}$	0.0033
$\Delta\theta_{g,d}$	-0.0071
$\Delta\theta_{g,F}$	-0.0057
$\Delta\theta_{i,g}$	-0.0340

Constants of Dispersion Formula	
A_1	1.89927344E+00
A_2	2.70978866E-01
A_3	1.33163819E+00
B_1	1.02901828E-02
B_2	4.24227173E-02
B_3	1.00967566E+02

Other Properties	
Bubble Quality Group B	
Specific Gravity d	4.53
Remarks	

Partial Dispersions	
n_C-n_t	0.014846
n_C-$n_{A'}$	0.006546
n_d-n_C	0.005921
n_e-n_C	0.010660
n_g-n_d	0.025414
n_g-n_F	0.011382
n_h-n_g	0.009735
n_i-n_g	0.026991
n_C-n_t	0.015778
n_e-$n_{C'}$	0.009728
n_F-n_e	0.010468
n_i-$n_{F'}$	0.037198

Thermal Properties		
Strain Point StP (℃)		526
Annealing Point AP (℃)		547
Transformation Temperature Tg (℃)		566
Yield Point At (℃)		602
Softening Point SP (℃)		645
Expansion Coefficients α (10^{-7}/℃)	(-30~+70℃)	58
	(+100~+300℃)	73
Thermal Conductivity k (W/m·K)		0.86

Mechanical Properties		
Young's Modulus E (10^8N/m^2)	1127	
Rigidity Modulus G (10^8N/m^2)	434	
Poisson's Ratio σ	0.300	
Knoop Hardness Hk[Class]	640	6
Abrasion Aa	78	
Photoelastic Constant β (nm/cm/10^5Pa)		2.17

Chemical Properties	
Water Resistance(Powder) Group RW(P)	1
Acid Resistance(Powder) Group RA(P)	3
Weathering Resistance(Surface) Group W(S)	
Acid Resistance(Surface) Group SR	51.2
Phosphate Resistance PR	1.2

Relative Partial Dispersions	
$\theta_{C,t}$	0.7440
$\theta_{C,A'}$	0.3281
$\theta_{d,C}$	0.2967
$\theta_{e,C}$	0.5343
$\theta_{g,d}$	1.2737
$\theta_{g,F}$	0.5704
$\theta_{h,g}$	0.4879
$\theta_{i,g}$	1.3527
$\theta'_{C',t}$	0.7812
$\theta'_{e,C'}$	0.4817
$\theta'_{F',e}$	0.5183
$\theta'_{i,F}$	1.8418

Coloring			
λ_{80}	41	λ_5	34
λ_{70}			

Internal Transmittance	
λ(nm)	τ10mm
280	
290	
300	
310	
320	
330	
340	0.09
350	0.37
360	0.65
370	0.81
380	0.89
390	0.932
400	0.954
420	0.974
440	0.982
460	0.987
480	0.991
500	0.994
550	0.997
600	0.997
650	0.998
700	0.998
800	0.999
900	0.999
1000	0.999
1200	0.998
1400	0.995
1600	0.993
1800	0.985
2000	0.966
2200	0.91
2400	0.72

Temperature Coefficients of Refractive Index							
Range of Temperature (℃)	dn/dt relative (10^{-6}/℃)						
	t	C'	He-Ne	D	e	F'	g
-40~20	6.7	7.5	7.6	7.8	8.2	9.0	9.8
-20~ 0	6.8	7.7	7.7	8.0	8.3	9.2	10.1
0~20	6.8	7.7	7.8	8.1	8.4	9.3	10.2
20~40	6.8	7.8	7.8	8.1	8.5	9.4	10.4
40~60	6.9	7.9	8.0	8.3	8.7	9.6	10.6
60~80	7.1	8.1	8.2	8.5	8.9	9.9	10.9