LAH80

Code(d) **885302**

Code(e) **892299**

Refractive Index	n_d	**1.88500**	Abbe Number	v_d	**30.2**	Dispersion	n_F-n_C	**0.02934**
		1.885000			30.16			0.029341
Refractive Index	n_e	1.891933	Abbe Number	v_e	29.94	Dispersion	n_F'-$n_{C'}$	0.029792

Refractive Indices		
λ(μm)		
n_{2325}	2.32542	1.82692
n_{1970}	1.97009	1.83469
n_{1530}	1.52958	1.84353
n_{1129}	1.12864	1.85255
n_t	1.01398	1.85598
n_s	0.85211	1.86248
$n_{A'}$	0.76819	1.86725
n_r	0.70652	1.87180
n_C	0.65627	1.87647
$n_{C'}$	0.64385	1.87781
n_{He-Ne}	0.6328	1.87906
n_D	0.58929	1.88475
n_d	0.58756	1.88500
n_e	0.54607	1.89193
n_F	0.48613	1.90581
$n_{F'}$	0.47999	1.90760
n_{He-Cd}	0.44157	1.92096
n_g	0.435835	1.92336
n_h	0.404656	1.93889
n_i	0.365015	

Deviation of Relative Dispersions Δθfrom "Normal"	
$\Delta\theta_{C,t}$	0.0104
$\Delta\theta_{C,A'}$	0.0020
$\Delta\theta_{g,d}$	0.0052
$\Delta\theta_{g,F}$	0.0052
$\Delta\theta_{i,g}$	

Constants of Dispersion Formula	
A_1	2.06636247E+00
A_2	3.49315832E-01
A_3	1.91746463E+00
B_1	1.22133846E-02
B_2	5.55959908E-02
B_3	1.25473620E+02

Other Properties	
Bubble Quality Group B	
Specific Gravity d	3.99
Remarks	

Partial Dispersions	
n_C-n_t	0.020498
n_C-$n_{A'}$	0.009224
n_d-n_C	0.008526
n_e-n_C	0.015459
n_g-n_d	0.038358
n_g-n_F	0.017543
n_h-n_g	0.015531
n_i-n_g	
n_C-n_t	0.021830
n_e-$n_{C'}$	0.014127
n_F-n_e	0.015665
n_i-$n_{F'}$	

Thermal Properties		
Strain Point StP (℃)		577
Annealing Point AP (℃)		596
Transformation Temperature Tg (℃)		622
Yield Point At (℃)		659
Softening Point SP (℃)		701
Expansion Coefficients α (10^{-7}/℃)	(-30~+70℃)	66
	(+100~+300℃)	82
Thermal Conductivity k (W/m·K)		1.044

Mechanical Properties		
Young's Modulus E (10^8N/m^2)	1236	
Rigidity Modulus G (10^8N/m^2)	480	
Poisson's Ratio σ	0.288	
Knoop Hardness Hk[Class]	660	7
Abrasion Aa	74	
Photoelastic Constant β (nm/cm/10^5Pa)		2.02

Chemical Properties	
Water Resistance(Powder) Group RW(P)	1
Acid Resistance(Powder) Group RA(P)	2
Weathering Resistance(Surface) Group W(S)	2
Acid Resistance(Surface) Group SR	2.3
Phosphate Resistance PR	1.0

Relative Partial Dispersions	
$\theta_{C,t}$	0.6986
$\theta_{C,A'}$	0.3144
$\theta_{d,C}$	0.2906
$\theta_{e,C}$	0.5269
$\theta_{g,d}$	1.3073
$\theta_{g,F}$	0.5979
$\theta_{h,g}$	0.5293
$\theta_{i,g}$	
$\theta'_{C',t}$	0.7327
$\theta'_{e,C'}$	0.4742
$\theta'_{F',e}$	0.5258
$\theta'_{i,F}$	

Coloring			
λ_{80}		λ_5	36
λ_{70}	41		

Internal Transmittance	
λ(nm)	τ10mm
280	
290	
300	
310	
320	
330	
340	
350	
360	0.06
370	0.37
380	0.65
390	0.79
400	0.86
420	0.921
440	0.949
460	0.965
480	0.975
500	0.982
550	0.992
600	0.995
650	0.996
700	0.997
800	0.998
900	0.998
1000	0.997
1200	0.997
1400	0.995
1600	0.993
1800	0.988
2000	0.973
2200	0.932
2400	0.79

Temperature Coefficients of Refractive Index							
Range of Temperature (℃)	dn/dt relative (10^{-6}/℃)						
	t	C'	He-Ne	D	e	F'	g
-40~20	3.7	4.7	4.8	5.1	5.6	6.7	8.1
-20~ 0	3.8	4.9	5.0	5.3	5.8	7.0	8.4
0~20	3.9	5.1	5.1	5.5	6.1	7.3	8.8
20~40	4.0	5.2	5.3	5.7	6.3	7.6	9.2
40~60	4.1	5.4	5.5	5.9	6.5	7.9	9.6
60~80	4.2	5.6	5.6	6.1	6.7	8.2	9.9