

L-LAM72

Code(d) **733489**

Code(e) **737487**

Refractive Index n_d	1.73310	Abbe Number ν_d	48.9	Dispersion n_F-n_C	0.01499
	1.733100		48.89		0.014994
Refractive Index n_e	1.736670	Abbe Number ν_e	48.65	Dispersion $n_F-n_{C'}$	0.015141

Refractive Indices		
$\lambda(\mu\text{m})$		
n_{2325}	2.32542	1.69303
n_{1970}	1.97009	1.70012
n_{1530}	1.52958	1.70769
n_{1129}	1.12864	1.71444
n_t	1.01398	1.71671
n_s	0.85211	1.72071
$n_{A'}$	0.76819	1.72348
n_r	0.70652	1.72603
n_C	0.65627	1.72858
$n_{C'}$	0.64385	1.72930
$n_{\text{He-Ne}}$	0.6328	1.72997
n_D	0.58929	1.73297
n_d	0.58756	1.73310
n_e	0.54607	1.73667
n_F	0.48613	1.74357
$n_{F'}$	0.47999	1.74444
$n_{\text{He-Cd}}$	0.44157	1.75076
n_g	0.435835	1.75187
n_h	0.404656	1.75882
n_i	0.365015	1.77083

Partial Dispersions	
n_C-n_t	0.011871
$n_C-n_{A'}$	0.005102
n_d-n_C	0.004521
n_e-n_C	0.008091
n_g-n_d	0.018766
n_g-n_F	0.008293
n_h-n_g	0.006956
n_i-n_g	0.018965
n_C-n_t	0.012588
$n_e-n_{C'}$	0.007374
$n_{F'}-n_e$	0.007767
$n_i-n_{F'}$	0.026394

Relative Partial Dispersions	
$\theta_{C,t}$	0.7917
$\theta_{C,A'}$	0.3403
$\theta_{d,C}$	0.3015
$\theta_{e,C}$	0.5396
$\theta_{g,d}$	1.2516
$\theta_{g,F}$	0.5531
$\theta_{h,g}$	0.4639
$\theta_{i,g}$	1.2648
$\theta'_{C,t}$	0.8314
$\theta'_{e,C'}$	0.4870
$\theta'_{F',e}$	0.5130
$\theta'_{i,F}$	1.7432

Thermal Properties	
Strain Point StP (°C)	533
Annealing Point AP (°C)	552
Transformation Temperature Tg (°C)	565
Yield Point At (°C)	608
Softening Point SP (°C)	641
Expansion Coefficients (-30~+70°C)	66
α (10 ⁻⁷ /°C) (+100~+300°C)	80
Thermal Conductivity k (W/m·K)	

Coloring			
λ_{80}	370	λ_5	300
λ_{70}			

Deviation of Relative Dispersions $\Delta\theta$ from "Normal"	
$\Delta\theta_{C,t}$	0.0156
$\Delta\theta_{C,A'}$	0.0052
$\Delta\theta_{g,d}$	-0.0116
$\Delta\theta_{g,F}$	-0.0093
$\Delta\theta_{i,g}$	-0.0508

Mechanical Properties	
Young's Modulus E (10 ⁸ N/m ²)	1182
Rigidity Modulus G (10 ⁸ N/m ²)	460
Poisson's Ratio σ	0.283
Knoop Hardness Hk(Class)	680 7
Abrasion Aa	82
Photoelastic Constant β (nm/cm/10 ⁵ Pa)	

Constants of Dispersion Formula	
A_1	1.50483297E+00
A_2	4.33346414E-01
A_3	1.27149210E+00
B_1	7.50342330E-03
B_2	2.69009520E-02
B_3	9.57631272E+01

Chemical Properties	
Water Resistance(Powder) Group RW(P)	1
Acid Resistance(Powder) Group RA(P)	4
Weathering Resistance(Surface) Group W(S)	3
Acid Resistance(Surface) Group SR	51.2
Phosphate Resistance PR	1.2

Other Properties	
Bubble Quality Group B	
Specific Gravity d	3.89
Remarks	

Internal Transmittance	
$\lambda(\text{nm})$	τ 10mm
280	
290	0.01
300	0.08
310	0.22
320	0.39
330	0.56
340	0.7
350	0.81
360	0.88
370	0.926
380	0.951
390	0.966
400	0.974
420	0.981
440	0.985
460	0.989
480	0.992
500	0.995
550	0.997
600	0.996
650	0.996
700	0.997
800	0.998
900	0.998
1000	0.998
1200	0.998
1400	0.997
1600	0.996
1800	0.991
2000	0.975
2200	0.932
2400	0.74

Temperature Coefficients of Refractive Index							
Range of Temperature (°C)	dn/dt relative (10 ⁻⁶ /°C)						
	t	C'	He-Ne	D	e	F'	g
-40~20							
-20~ 0							
0~20							
20~40							
40~60							
60~80							