

# L-LAM72

Code(d) **733489**

Code(e) **737487**

Refractive Index $n_d$	<b>1.73310</b>	Abbe Number $v_d$	<b>48.9</b>	Dispersion $n_F-n_C$	<b>0.01499</b>
	1.733100		48.89		0.014994
Refractive Index $n_e$	1.736670	Abbe Number $v_e$	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
$\alpha$ (10 <sup>-7</sup> /°C) (+100~+300°C)	80
Thermal Conductivity k (W/m-K)	

Coloring			
$\lambda_{80}$	37	$\lambda_5$	30
$\lambda_{70}$			

Internal Transmittance	
$\lambda(\text{nm})$	$\tau_{10\text{mm}}$
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

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 <sup>8</sup> N/m <sup>2</sup> )	1182
Rigidity Modulus G (10 <sup>8</sup> N/m <sup>2</sup> )	460
Poisson's Ratio $\sigma$	0.283
Knoop Hardness Hk[Class]	680   7
Abrasion Aa	82
Photoelastic Constant $\beta$ (nm/cm/10 <sup>5</sup> Pa)	

Constants of Dispersion Formula	
A <sub>1</sub>	1.50483297E+00
A <sub>2</sub>	4.33346414E-01
A <sub>3</sub>	1.27149210E+00
B <sub>1</sub>	7.50342330E-03
B <sub>2</sub>	2.69009520E-02
B <sub>3</sub>	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)	
Acid Resistance(Surface) Group SR	51.2
Phosphate Resistance PR	1.2

Other Properties	
Bubble Quality Group B	
Specific Gravity d	3.89
Remarks	

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