

D-LaF731 731405

nd = 1.73077	vd = 40.50	nF - nC = 0.018043
ne = 1.73505	ve = 40.25	nF' - nC' = 0.018263

Refractive Indices		
	λ (nm)	
n_r	706.5	1.72242
n_c	656.3	1.72541
$n_{c'}$	643.8	1.72625
n_{He-Ne}	632.8	1.72704
n_D	589.3	1.73061
n_d	587.6	1.73077
n_e	546.1	1.73505
n_F	486.1	1.74345
$n_{F'}$	480.0	1.74452
n_g	435.8	1.75376
n_h	404.7	1.76261
n_i	365.0	1.77837

Constants of Dispersion (Cauchy)	
A_0	2.9167886
A_1	$-1.2398199 \times 10^{-2}$
A_2	2.6675237×10^{-2}
A_3	6.5190504×10^{-4}
A_4	4.6956175×10^{-6}
A_5	2.6910540×10^{-6}

Relative Partial Dispersion			
$P_{d,c}$	0.2971	$P'_{d,c'}$	0.2474
$P_{e,d}$	0.2373	$P'_{e,d}$	0.2343
$P_{g,F}$	0.5715	$P'_{g,F'}$	0.5057

Deviation of Relative Partial Dispersions	
$\Delta P_{F,e}$	-0.0022
$\Delta P_{g,F}$	-0.0048

NHG	HOYA	OHARA	SCHOTT
D-LaF731	M-LAF81	L-LAM69	

Chemical Properties	
	grade
RC(S)	
RA(S)	
DW	1
DA	2

Thermal Properties	
T_g (°C)	495
T_s (°C)	531
$T_{10}^{14.5}$ (°C)	
T_{10}^{13} (°C)	
$\alpha_{20/120^\circ C}$ ($10^{-7}/K$)	87.02
$\alpha_{20/300^\circ C}$ ($10^{-7}/K$)	103.67

Mechanical Properties	
Hardness ($10^7 Pa$)	545
FA (Relative Abrasion)	
Young's Modulus ($10^7 Pa$)	11100
Rigidity Modulus ($10^7 Pa$)	4310
Poisson's Ratio	0.287

Photoelastic Constant	
β ($10^{-12}/Pa$)	2.03

Color	
λ_{80}/λ_5	39/34

Specific Gravity	
ρ (g/cm^3)	3.2

Internal Transmittance		
λ (nm)	τ_{5mm}	τ_{10mm}
2400		
2200		
2000		
1800		
1600		
1400		
1200		
1060		
1000		
950		
900		
850		
800		
700	0.997	0.996
650	0.997	0.996
600	0.997	0.996
550	0.997	0.995
500	0.996	0.993
480	0.995	0.99
460	0.993	0.985
440	0.989	0.979
420	0.985	0.97
400	0.973	0.947
390	0.96	0.922
380	0.94	0.88
370	0.91	0.83
360	0.85	0.71
350	0.67	0.45
340	0.34	0.11
330	0.06	
320		
310		
300		
290		
280		



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