

H-LaF3	744449
---------------	---------------

nd =1.74400	vd =44.90	nF-nC =0.016570
ne =1.74794	ve =44.63	nF'-nc' =0.01676

Refractive Indices		
	λ (nm)	
n_r	706.5	1.73630
n_c	656.3	1.73906
$n_{c'}$	643.8	1.73984
n_{He-Ne}	632.8	1.74057
n_D	589.3	1.74386
n_d	587.6	1.74400
n_e	546.1	1.74794
n_F	486.1	1.75563
$n_{F'}$	480.0	1.75660
n_g	435.8	1.76496
n_h	404.7	1.77285
n_i	365.0	1.78660

Constants of Dispersion (Cauchy)	
A_0	2.9657374
A_1	-9.65716×10^{-3}
A_2	$2.60245251 \times 10^{-2}$
A_3	$3.66846411 \times 10^{-4}$
A_4	$2.82055511 \times 10^{-5}$
A_5	$-1.37399291 \times 10^{-7}$

Relative Partial Dispersions			
$P_{d,c}$	0.2981	$P'_{d,c'}$	0.2484
$P_{e,d}$	0.2378	$P'_{e,d}$	0.2352
$P_{g,F}$	0.5628	$P'_{g,F'}$	0.4988

Deviation of Relative Partial Dispersions	
$\Delta P_{F,e}$	-0.0013
$\Delta P_{g,F}$	-0.006

NHG	HOYA	OHARA	SCHOTT
H-LaF3	E-LAF2	S-LAM2	N-LAF2

Chemical Properties	
	Group
RC(S)	1
RA(S)	3
DW	1
DA	3

Thermal Properties	
T_g (°C)	693
T_s (°C)	744
$T_{10}^{14.5}$ (°C)	625
T_{10}^{13} (°C)	667
$\alpha_{20/120^\circ C}$ ($10^{-7}/K$)	73.67
$\alpha_{20/300^\circ C}$ ($10^{-7}/K$)	79.48

Mechanical Properties	
Hardness ($10^7 Pa$)	511
FA (Relative Abrasion)	
Young's Modulus ($10^7 Pa$)	8587
Rigidity Modulus ($10^7 Pa$)	3325
Poisson's Ratio	0.291

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

Color	
λ_{80}/λ_5	38/32

Specific Gravity	
ρ (g/cm^3)	4.38

Internal Transmittance		
λ (nm)	τ_{5mm}	τ_{10mm}
2400	0.918	0.843
2200	0.963	0.928
2000	0.982	0.965
1800	0.991	0.982
1600	0.997	0.995
1400	0.999	0.998
1200	0.999	0.998
1060	0.999	0.998
1000	0.999	0.998
950	0.999	0.998
900	0.999	0.998
850	0.998	0.996
800	0.996	0.992
700	0.995	0.991
650	0.995	0.99
600	0.994	0.989
550	0.994	0.989
500	0.992	0.985
480	0.991	0.982
460	0.989	0.978
440	0.987	0.975
420	0.986	0.972
400	0.98	0.961
390	0.974	0.948
380	0.96	0.921
370	0.934	0.872
360	0.88	0.78
350	0.81	0.65
340	0.68	0.46
330	0.48	0.23
320	0.24	0.06
310		
300		
290		
280		



Naked Optics Corp.
 16 Mt. Bethel Rd. #374
 Warren, NJ 07059
 908-685-0352 (ph) . 908-325-0250 (fax)