

# H-LaF53 743492

nd = 1.74330	vd = 49.22	nF - nC = 0.015101
ne = 1.74690	ve = 48.99	nF' - nc' = 0.015246

Refractive Indices		
	$\lambda$ ( nm )	
$n_r$	706.5	1.73617
$n_c$	656.3	1.73874
$n_{c'}$	643.8	1.73946
$n_{He-Ne}$	632.8	1.74014
$n_D$	589.3	1.74317
$n_d$	587.6	1.74330
$n_e$	546.1	1.74690
$n_F$	486.1	1.75384
$n_{F'}$	480.0	1.75471
$n_g$	435.8	1.76214
$n_h$	404.7	1.76907
$n_i$	365.0	1.78109

Constants of Dispersion (Cauchy)	
$A_0$	2.9753491
$A_1$	$-1.4613470 \times 10^{-2}$
$A_2$	$2.1096383 \times 10^{-2}$
$A_3$	$1.1980380 \times 10^{-3}$
$A_4$	$-1.1887388 \times 10^{-4}$
$A_5$	$7.3444350 \times 10^{-6}$

Relative Partial Dispersions			
$P_{d,c}$	0.302	$P'_{d,c'}$	0.2518
$P_{e,d}$	0.2384	$P'_{e,d}$	0.2361
$P_{g,F}$	0.5497	$P'_{g,F'}$	0.4872

Deviation of Relative Partial Dispersions	
$\Delta P_{F,e}$	-0.0034
$\Delta P_{g,F}$	-0.0122

NHG	HOYA	OHARA	SCHOTT
H-LaF53	NBF1	S-LAM60	N-LAF35

Chemical Properties	
	Group
RC(S)	1
RA(S)	3
DW	1
DA	4

Thermal Properties	
$T_g$ ( °C )	594
$T_s$ ( °C )	624
$T_{10}^{14.5}$ ( °C )	
$T_{10}^{13}$ ( °C )	
$\alpha_{20/120^\circ C}$ ( $10^{-7}/K$ )	49.8
$\alpha_{20/300^\circ C}$ ( $10^{-7}/K$ )	59.85

Mechanical Properties	
Hardness ( $10^7 Pa$ )	698
FA (Relative Abrasion)	1.43
Young's Modulus ( $10^7 Pa$ )	10678
Rigidity Modulus ( $10^7 Pa$ )	4084
Poisson's Ratio	0.308

Photoelastic Constant	
$\beta$ ( $10^{-12}/Pa$ )	2.28

Color	
$\lambda_{80}/\lambda_5$	37/30

Specific Gravity	
$\rho$ ( $g/cm^3$ )	4.15

Internal Transmittance		
$\lambda$ ( nm )	$\tau_{5mm}$	$\tau_{10mm}$
2400	0.8	0.64
2200	0.939	0.881
2000	0.976	0.952
1800	0.989	0.979
1600	0.996	0.992
1400	0.998	0.996
1200	0.998	0.997
1060	0.999	0.998
1000	0.999	0.998
950	0.999	0.998
900	0.999	0.997
850	0.998	0.996
800	0.998	0.995
700	0.997	0.994
650	0.997	0.993
600	0.997	0.993
550	0.997	0.993
500	0.995	0.99
480	0.993	0.987
460	0.992	0.984
440	0.988	0.977
420	0.985	0.97
400	0.978	0.956
390	0.97	0.94
380	0.954	0.91
370	0.93	0.86
360	0.88	0.78
350	0.81	0.65
340	0.71	0.5
330	0.57	0.32
320	0.41	0.17
310	0.25	0.06
300	0.1	0.21
290		
280		



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