

## H-LaF52      786439

nd =1.78590	vd =44.19	nF – nC =0.017786
ne =1.79013	ve =43.93	nF' - nc' =0.017988

Refractive Indices		
	$\lambda$ ( nm )	
$n_r$	706.5	1.77761
$n_c$	656.3	1.78059
$n_{c'}$	643.8	1.78142
$n_{He-Ne}$	632.8	1.78221
$n_D$	589.3	1.78574
$n_d$	587.6	1.78590
$n_e$	546.1	1.79013
$n_F$	486.1	1.79837
$n_{F'}$	480.0	1.79941
$n_g$	435.8	1.80839
$n_h$	404.7	1.81687
$n_i$	365.0	1.83174

Constants of Dispersion (Cauchy)	
$A_0$	3.110662
$A_1$	$-1.4462677 \times 10^{-2}$
$A_2$	$2.6457698 \times 10^{-2}$
$A_3$	$9.1877798 \times 10^{-4}$
$A_4$	$-3.3951573 \times 10^{-5}$
$A_5$	$3.3257840 \times 10^{-6}$

Relative Partial Dispersions			
$P_{d,c}$	0.2987	$P'_{d,c'}$	0.249
$P_{e,d}$	0.2379	$P'_{e,d}$	0.2351
$P_{g,F}$	0.5636	$P'_{g,F'}$	0.4992

Deviation of Relative Partial Dispersions	
$\Delta P_{F,e}$	-0.0024
$\Delta P_{g,F}$	-0.0066

NHG	HOYA	OHARA	SCHOTT
H-LaF52	NbFD11	S-LaH51	N-LaF33

Chemical Properties	
	Group
RC(S)	1
RA(S)	3
DW	1
DA	2

Thermal Properties	
$T_g$ ( °C )	592
$T_s$ ( °C )	628
$T_{10}^{14.5}$ ( °C )	558
$T_{10}^{13}$ ( °C )	584
$\alpha_{20/120^\circ C}$ ( $10^{-7}/K$ )	56.22
$\alpha_{20/300^\circ C}$ ( $10^{-7}/K$ )	64.45

Mechanical Properties	
Hardness ( $10^7 Pa$ )	668
FA (Relative Abrasion)	1.27
Young's Modulus ( $10^7 Pa$ )	11290
Rigidity Modulus ( $10^7 Pa$ )	4350
Poisson's Ratio	0.297

Photoelastic Constant	
$\beta$ ( $10^{-12}/Pa$ )	2.16

Color	
$\lambda_{80}/\lambda_5$	40/32

Specific Gravity	
$\rho$ ( $g/cm^3$ )	4.37

Internal Transmittance		
$\lambda$ ( nm )	$\tau_{5mm}$	$\tau_{10mm}$
2400	0.76	0.58
2200	0.88	0.77
2000	0.968	0.937
1800	0.978	0.956
1600	0.992	0.985
1400	0.997	0.995
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	0.999	0.998
800	0.998	0.996
700	0.995	0.99
650	0.994	0.989
600	0.994	0.988
550	0.994	0.988
500	0.992	0.984
480	0.99	0.98
460	0.988	0.976
440	0.984	0.969
420	0.978	0.957
400	0.964	0.929
390	0.949	0.9
380	0.927	0.86
370	0.89	0.79
360	0.84	0.7
350	0.76	0.58
340	0.66	0.43
330	0.49	0.24
320	0.24	0.06
310		
300		
290		
280		



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