

## H-LaF54 800423

nd =1.79950	vd =42.34	nF – nC =0.018883
ne =1.80399	ve =42.09	nF' - nC' =0.019101

Refractive Indices		
	$\lambda$ ( nm )	
$n_r$	706.5	1.79073
$n_c$	656.3	1.79388
$n_{c'}$	643.8	1.79476
$n_{He-Ne}$	632.8	1.79559
$n_D$	589.3	1.79934
$n_d$	587.6	1.79950
$n_e$	546.1	1.80399
$n_F$	486.1	1.81276
$n_{F'}$	480.0	1.81386
$n_g$	435.8	1.82342
$n_h$	404.7	1.83248
$n_i$	365.0	1.84838

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

Internal Transmittance		
$\lambda$ ( nm )	$\tau_{5mm}$	$\tau_{10mm}$
2400	0.85	0.73
2200	0.96	0.921
2000	0.984	0.969
1800	0.995	0.99
1600	0.998	0.996
1400	0.999	0.998
1200	0.999	0.998
1060	0.998	0.997
1000	0.998	0.997
950	0.998	0.996
900	0.998	0.996
850	0.998	0.996
800	0.998	0.997
700	0.998	0.997
650	0.998	0.997
600	0.998	0.996
550	0.997	0.995
500	0.997	0.994
480	0.996	0.993
460	0.995	0.991
440	0.992	0.985
420	0.987	0.974
400	0.974	0.949
390	0.961	0.924
380	0.949	0.9
370	0.9	0.81
360	0.82	0.68
350	0.68	0.46
340	0.38	0.15
330	0.08	0.01
320		
310		
300		
290		
280		

Thermal Properties	
Tg ( °C )	595
Ts ( °C )	620
T <sub>10</sub> <sup>14.5</sup> ( °C )	
T <sub>10</sub> <sup>13</sup> ( °C )	
$\alpha_{20/120^\circ C}$ ( 10 <sup>-7</sup> /K )	59
$\alpha_{20/300^\circ C}$ ( 10 <sup>-7</sup> /K )	68

Constants of Dispersion (Cauchy)	
A <sub>0</sub>	3.1513655
A <sub>1</sub>	-1.3052015×10 <sup>-2</sup>
A <sub>2</sub>	2.9502111×10 <sup>-2</sup>
A <sub>3</sub>	6.7643437×10 <sup>-4</sup>
A <sub>4</sub>	3.6679701×10 <sup>-6</sup>
A <sub>5</sub>	1.8233293×10 <sup>-6</sup>

Mechanical Properties	
Hardness ( 10 <sup>7</sup> Pa )	698
FA (Relative Abrasion)	1.22
Young's Modulus (10 <sup>7</sup> Pa)	11076
Rigidity Modulus (10 <sup>7</sup> Pa)	4249
Poisson's Ratio	0.305

Relative Partial Dispersions			
P <sub>d,c</sub>	0.2977	P' <sub>d,c'</sub>	0.2482
P <sub>e,d</sub>	0.2378	P' <sub>e,d</sub>	0.2351
P <sub>g,F</sub>	0.5646	P' <sub>g,F'</sub>	0.5005

Photoelastic Constant	
$\beta$ ( 10 <sup>-12</sup> /Pa )	2.28

Deviation of Relative Partial Dispersions	
$\Delta P_{F,e}$	-0.0023
$\Delta P_{g,F}$	-0.0087

Color	
$\lambda_{80}/\lambda_5$	39/33

Specific Gravity	
$\rho$ ( g/cm <sup>3</sup> )	4.45

NHG	HOYA	OHARA	SCHOTT
H-LaF54	NBFD12	S-LAH52	N-LAF36



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