

<b>H-LaK54 734511</b>
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nd =1.73400	vd =51.05	nF – nC =0.014377
ne =1.73742	ve =50.82	nF' - nc' =0.014511

Refractive Indices		
	$\lambda$ ( nm )	
$n_r$	706.5	1.72718
$n_c$	656.3	1.72965
$n_{c'}$	643.8	1.73034
$n_{He-Ne}$	632.8	1.73099
$n_D$	589.3	1.73387
$n_d$	587.6	1.73400
$n_e$	546.1	1.73742
$n_F$	486.1	1.74403
$n_{F'}$	480.0	1.74485
$n_g$	435.8	1.75193
$n_h$	404.7	1.75853
$n_i$	365.0	1.76975

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

Internal Transmittance		
$\lambda$ ( nm )	$\tau_{5mm}$	$\tau_{10mm}$
2400	0.81	0.65
2200	0.948	0.899
2000	0.981	0.962
1800	0.992	0.985
1600	0.998	0.997
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	0.997
800	0.998	0.996
700	0.997	0.995
650	0.997	0.994
600	0.997	0.994
550	0.997	0.994
500	0.996	0.992
480	0.995	0.99
460	0.993	0.987
440	0.992	0.984
420	0.989	0.979
400	0.984	0.969
390	0.978	0.957
380	0.969	0.938
370	0.951	0.905
360	0.924	0.853
350	0.88	0.78
340	0.82	0.67
330	0.73	0.53
320	0.62	0.39
310	0.49	0.24
300	0.35	0.12
290	0.2	0.04
280	0.06	

Thermal Properties	
Tg ( °C )	630
Ts ( °C )	655
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 )	54
$\alpha_{20/300^\circ C}$ ( 10 <sup>-7</sup> /K )	64

Constants of Dispersion (Cauchy)	
A <sub>0</sub>	2.9425645
A <sub>1</sub>	-1.3266554×10 <sup>-2</sup>
A <sub>2</sub>	2.3559223×10 <sup>-2</sup>
A <sub>3</sub>	-1.6399009×10 <sup>-4</sup>
A <sub>4</sub>	9.2370759×10 <sup>-5</sup>
A <sub>5</sub>	-4.8615982×10 <sup>-6</sup>

Mechanical Properties	
Hardness ( 10 <sup>7</sup> Pa )	770
FA (Relative Abrasion)	
Young's Modulus (10 <sup>7</sup> Pa)	11387
Rigidity Modulus (10 <sup>7</sup> Pa)	4401
Poisson's Ratio	0.299

Relative Partial Dispersions			
P <sub>d,c</sub>	0.3025	P' <sub>d,c'</sub>	0.2522
P <sub>e,d</sub>	0.2378	P' <sub>e,d'</sub>	0.2357
P <sub>g,F</sub>	0.5494	P' <sub>g,F'</sub>	0.4879

Photoelastic Constant	
$\beta$ ( 10 <sup>-12</sup> /Pa )	2.06

Deviation of Relative Partial Dispersions	
$\Delta P_{F,e}$	-0.0024
$\Delta P_{g,F}$	-0.0094

Color	
$\lambda_{80}/\lambda_5$	37/29

Specific Gravity	
$\rho$ ( g/cm <sup>3</sup> )	4.06

NHG	HOYA	OHARA	SCHOTT
H-LaK54	TAC4	S-LAL59	



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