

<b>H-ZK9</b>	<b>620603</b>
--------------	---------------

nd =1.62041	vd =60.34	nF – nC =0.010281
ne =1.62286	ve =60.1	nF' – nc' =0.010363

Refractive Indices		
	$\lambda$ ( nm )	
$n_r$	706.5	1.61547
$n_c$	656.3	1.61727
$n_c'$	643.8	1.61777
$n_{He-Ne}$	632.8	1.61824
$n_D$	589.3	1.62032
$n_d$	587.6	1.62041
$n_e$	546.1	1.62286
$n_F$	486.1	1.62755
$n_{F'}$	480.0	1.62813
$n_g$	435.8	1.6331
$n_h$	404.7	1.63768
$n_i$	365.0	1.6455

Chemical Properties	
	Group
RC(S)	1
RA(S)	3
DW	2
DA	4

Internal Transmittance		
$\lambda$ ( nm )	$\tau_{5mm}$	$\tau_{10mm}$
2400	0.82	0.67
2200	0.9	0.81
2000	0.97	0.941
1800	0.981	0.962
1600	0.992	0.984
1400	0.997	0.994
1200	0.999	0.998
1060	0.999	0.999
1000	0.999	0.999
950	0.999	0.999
900	0.999	0.999
850	0.999	0.999
800	0.999	0.999
700	0.999	0.997
650	0.999	0.997
600	0.999	0.997
550	0.999	0.997
500	0.999	0.997
480	0.999	0.996
460	0.997	0.994
440	0.997	0.994
420	0.996	0.993
400	0.994	0.987
390	0.991	0.982
380	0.986	0.973
370	0.975	0.952
360	0.956	0.914
350	0.92	0.847
340	0.86	0.74
330	0.77	0.59
320	0.63	0.4
310	0.47	0.22
300	0.29	0.08
290	0.13	0.02
280	0.03	

Thermal Properties	
Tg ( °C )	640
T <sub>S</sub> ( °C )	676
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 )	63.53
$\alpha_{20/300^\circ C}$ ( 10 <sup>-7</sup> /K )	72.98

Constants of Dispersion (Cauchy)	
A <sub>0</sub>	2.5859898
A <sub>1</sub>	-1.19404321×10 <sup>-2</sup>
A <sub>2</sub>	1.39955021×10 <sup>-2</sup>
A <sub>3</sub>	4.89745021×10 <sup>-4</sup>
A <sub>4</sub>	-3.91207171×10 <sup>-5</sup>
A <sub>5</sub>	2.26119151×10 <sup>-6</sup>

Mechanical Properties	
Hardness ( 10 <sup>7</sup> Pa )	575
FA (Relative Abrasion)	0.77
Young's Modulus (10 <sup>7</sup> Pa)	8830
Rigidity Modulus (10 <sup>7</sup> Pa)	3480
Poisson's Ratio	0.269

Relative Partial Dispersions			
P <sub>d,c</sub>	0.3054	P' <sub>d,c'</sub>	0.2548
P <sub>e,d</sub>	0.2383	P' <sub>e,d'</sub>	0.2365
P <sub>g,F</sub>	0.5399	P' <sub>g,F'</sub>	0.4797

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

Deviation of Relative Partial Dispersions	
$\Delta P_{F,e}$	-0.0007
$\Delta P_{g,F}$	-0.0035

Color	
$\lambda_{80}/\lambda_5$	36/30

Specific Gravity	
$\rho$ ( g/cm <sup>3</sup> )	3.58

NHG	HOYA	OHARA	SCHOTT
H-ZK9	BaCD16	S-BSM16	N-SK16



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