

<b>H-ZK21 623581</b>
----------------------

nd =1.62299	vd =58.12	nF - nC =0.010719
ne =1.62555	ve =57.87	nF' - nc' =0.010809

Refractive Indices		
	$\lambda$ ( nm )	
$n_r$	706.5	1.61787
$n_c$	656.3	1.61973
$n_{c'}$	643.8	1.62025
$n_{He-Ne}$	632.8	1.62074
$n_D$	589.3	1.6229
$n_d$	587.6	1.62299
$n_e$	546.1	1.62555
$n_F$	486.1	1.63045
$n_{F'}$	480.0	1.63106
$n_g$	435.8	1.63628
$n_h$	404.7	1.64115
$n_i$	365.0	1.64946

Constants of Dispersion (Cauchy)	
$A_0$	2.5864832
$A_1$	$-8.03578291 \times 10^{-3}$
$A_2$	$1.80805731 \times 10^{-2}$
$A_3$	$-4.59741721 \times 10^{-4}$
$A_4$	$8.84843211 \times 10^{-5}$
$A_5$	$-3.75447651 \times 10^{-6}$

Relative Partial Dispersions			
$P_{d,c}$	0.3041	$P'_{d,c'}$	0.2535
$P_{e,d}$	0.2388	$P'_{e,d}$	0.2368
$P_{g,F}$	0.5438	$P'_{g,F'}$	0.4829

Deviation of Relative Partial Dispersions	
$\Delta P_{F,e}$	-0.001
$\Delta P_{g,F}$	-0.0032

NHG	HOYA	OHARA	SCHOTT
H-ZK21	BaCD15	S-BSM15	N-SK15

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

Thermal Properties	
$T_g$ ( °C )	637
$T_S$ ( °C )	692
$T_{10}^{14.5}$ ( °C )	590
$T_{10}^{13}$ ( °C )	630
$\alpha_{20/120^\circ C}$ ( $10^{-7}/K$ )	63
$\alpha_{20/300^\circ C}$ ( $10^{-7}/K$ )	70

Mechanical Properties	
Hardness ( $10^7 Pa$ )	581
FA (Relative Abrasion)	0.77
Young's Modulus ( $10^7 Pa$ )	10086
Rigidity Modulus ( $10^7 Pa$ )	4073
Poisson's Ratio	0.238

Stress-Optical Coefficient	
$B$ ( $10^{-12}/Pa$ )	

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

Specific Gravity	
$\rho$ ( $g/cm^3$ )	3.54

Internal Transmittance		
$\lambda$ ( nm )	$\tau_{5mm}$	$\tau_{10mm}$
2400	0.88	0.77
2200	0.944	0.892
2000	0.984	0.968
1800	0.992	0.985
1600	0.997	0.995
1400	0.999	0.998
1200	0.999	0.998
1060	0.999	0.998
1000	0.999	0.998
950	0.998	0.996
900	0.997	0.995
850	0.997	0.995
800	0.996	0.993
700	0.996	0.993
650	0.996	0.993
600	0.996	0.993
550	0.996	0.993
500	0.996	0.992
480	0.996	0.992
460	0.995	0.99
440	0.994	0.989
420	0.994	0.988
400	0.99	0.981
390	0.986	0.972
380	0.979	0.958
370	0.964	0.93
360	0.938	0.88
350	0.89	0.79
340	0.81	0.65
330	0.69	0.47
320	0.52	0.27
310	0.33	0.11
300	0.17	0.03
290		
280		



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

