

H-ZK7 613606

nd =1.61309	vd =60.58	nF – nC =0.01012
ne =1.61551	ve =60.34	nF' - nc' =0.010201

Refractive Indices		
	λ (nm)	
n_r	706.5	1.60824
n_c	656.3	1.61001
$n_{c'}$	643.8	1.6105
n_{He-Ne}	632.8	1.61096
n_D	589.3	1.613
n_d	587.6	1.61309
n_e	546.1	1.61551
n_F	486.1	1.62013
$n_{F'}$	480.0	1.6207
n_g	435.8	1.62561
n_h	404.7	1.63016
n_i	365.0	1.63791

Constants of Dispersion (Cauchy)	
A_0	2.5621224
A_1	$-1.09306421 \times 10^{-2}$
A_2	$1.43319381 \times 10^{-2}$
A_3	$2.80738031 \times 10^{-4}$
A_4	$-8.50072361 \times 10^{-6}$
A_5	$7.38845191 \times 10^{-7}$

Relative Partial Dispersions			
$P_{d,c}$	0.3043	$P'_{d,c'}$	0.2539
$P_{e,d}$	0.2381	$P'_{e,d}$	0.2363
$P_{g,F}$	0.5415	$P'_{g,F'}$	0.4814

Deviation of Relative Partial Dispersions	
$\Delta P_{F,e}$	0.0008
$\Delta P_{g,F}$	-0.0015

NHG	HOYA	OHARA	SCHOTT
H-ZK7			

Chemical Properties	
	Group
RC(S)	1
RA(S)	3
DW	3
DA	6

Thermal Properties	
T_g (°C)	638
T_s (°C)	683
$T_{10}^{14.5}$ (°C)	609
T_{10}^{13} (°C)	640
$\alpha_{20/120^\circ C}$ ($10^{-7}/K$)	62.57
$\alpha_{20/300^\circ C}$ ($10^{-7}/K$)	70.44

Mechanical Properties	
Hardness ($10^7 Pa$)	560
FA (Relative Abrasion)	0.55
Young's Modulus ($10^7 Pa$)	8847
Rigidity Modulus ($10^7 Pa$)	3501
Poisson's Ratio	0.264

Photoelastic Constant	
β ($10^{-12}/Pa$)	

Color	
λ_{80}/λ_5	35/30

Specific Gravity	
ρ (g/cm^3)	3.50

Internal Transmittance		
λ (nm)	τ_{5mm}	τ_{10mm}
2400	0.89	0.79
2200	0.948	0.898
2000	0.984	0.968
1800	0.992	0.985
1600	0.998	0.997
1400	0.995	0.99
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	0.999	0.998
700	0.999	0.998
650	0.998	0.997
600	0.998	0.997
550	0.998	0.997
500	0.997	0.995
480	0.997	0.994
460	0.996	0.993
440	0.996	0.992
420	0.995	0.991
400	0.993	0.987
390	0.99	0.98
380	0.984	0.969
370	0.975	0.95
360	0.953	0.908
350	0.918	0.842
340	0.85	0.73
330	0.75	0.56
320	0.61	0.37
310	0.42	0.06
300	0.11	0.01
290		
280		



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