

<b>H-ZK4</b>	<b>609589</b>
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nd =1.60881	vd =58.86	nF – nC =0.010344
ne =1.61128	ve =58.57	nF' - nc' =0.010437

Refractive Indices		
	$\lambda$ ( nm )	
$n_r$	706.5	1.60388
$n_c$	656.3	1.60567
$n_{c'}$	643.8	1.60617
$n_{He-Ne}$	632.8	1.60663
$n_D$	589.3	1.60872
$n_d$	587.6	1.60881
$n_e$	546.1	1.61128
$n_F$	486.1	1.61601
$n_{F'}$	480.0	1.6166
$n_g$	435.8	1.62165
$n_h$	404.7	1.62632
$n_i$	365.0	1.63432

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

Internal Transmittance		
$\lambda$ ( nm )	$\tau_{5mm}$	$\tau_{10mm}$
2400	0.91	0.828
2200	0.952	0.906
2000	0.983	0.967
1800	0.992	0.984
1600	0.998	0.996
1400	0.999	0.998
1200	0.999	0.998
1060	0.999	0.998
1000	0.998	0.997
950	0.997	0.995
900	0.997	0.995
850	0.996	0.993
800	0.998	0.996
700	0.997	0.995
650	0.997	0.995
600	0.997	0.995
550	0.998	0.996
500	0.997	0.994
480	0.996	0.993
460	0.996	0.992
440	0.995	0.991
420	0.994	0.989
400	0.992	0.984
390	0.987	0.975
380	0.981	0.963
370	0.969	0.939
360	0.944	0.891
350	0.9	0.81
340	0.82	0.68
330	0.7	0.49
320	0.53	0.28
310	0.33	0.11
300	0.16	0.03
290	0.05	
280		

Thermal Properties	
$T_g$ ( °C )	661
$T_s$ ( °C )	713
$T_{10}^{14.5}$ ( °C )	606
$T_{10}^{13}$ ( °C )	643
$\alpha_{20/120^\circ C}$ ( $10^{-7}/K$ )	57.76
$\alpha_{20/300^\circ C}$ ( $10^{-7}/K$ )	68.57

Constants of Dispersion (Cauchy)	
$A_0$	2.5471835
$A_1$	$-1.01714321 \times 10^{-2}$
$A_2$	$1.44598171 \times 10^{-2}$
$A_3$	$3.73194981 \times 10^{-4}$
$A_4$	$-2.15745901 \times 10^{-5}$
$A_5$	$1.51121151 \times 10^{-6}$

Mechanical Properties	
Hardness ( $10^7 Pa$ )	516
FA (Relative Abrasion)	
Young's Modulus ( $10^7 Pa$ )	8112
Rigidity Modulus ( $10^7 Pa$ )	6206
Poisson's Ratio	0.265

Relative Partial Dispersions			
$P_{d,c}$	0.3037	$P'_{d,c'}$	0.2531
$P_{e,d}$	0.2389	$P'_{e,d}$	0.2368
$P_{g,F}$	0.5455	$P'_{g,F'}$	0.4842

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

Deviation of Relative Partial Dispersions	
$\Delta P_{F,e}$	-0.0003
$\Delta P_{g,F}$	-0.0004

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

Specific Gravity	
$\rho$ ( $g/cm^3$ )	3.51

NHG	HOYA	OHARA	SCHOTT
H-ZK4	BaCD3	BSM3	SK3



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