

<b>H-ZLaF53</b>	<b>834373</b>
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nd =1.83400	vd =37.34	nF – nC =0.022333
ne =1.83930	ve =37.09	nF' - nc' =0.022629

Refractive Indices		
	$\lambda$ ( nm )	
$n_r$	706.5	1.82378
$n_c$	656.3	1.82742
$n_{c'}$	643.8	1.82845
$n_{He-Ne}$	632.8	1.82942
$n_D$	589.3	1.83381
$n_d$	587.6	1.83400
$n_e$	546.1	1.83930
$n_F$	486.1	1.84975
$n_{F'}$	480.0	1.85108
$n_g$	435.8	1.86268
$n_h$	404.7	1.87385
$n_i$	365.0	1.89393

Constants of Dispersion (Cauchy)	
$A_0$	3.2615573
$A_1$	$-1.4542851 \times 10^{-2}$
$A_2$	$3.3470739 \times 10^{-2}$
$A_3$	$1.2266479 \times 10^{-3}$
$A_4$	$-2.5391842 \times 10^{-5}$
$A_5$	$5.5971739 \times 10^{-6}$

Relative Partial Dispersions			
$P_{d,c}$	0.2946	$P'_{d,c'}$	0.2452
$P_{e,d}$	0.2371	$P'_{e,d}$	0.2340
$P_{g,F}$	0.5790	$P'_{g,F'}$	0.5126

Deviation of Relative Partial Dispersions	
$\Delta P_{F,e}$	-0.0016
$\Delta P_{g,F}$	-0.0025

NHG	HOYA	OHARA	SCHOTT
H-ZLaF53	NBFD10	S-LAH60	N-LASF40

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

Thermal Properties	
$T_g$ ( °C )	585
$T_s$ ( °C )	624
$T_{10}^{14.5}$ ( °C )	
$T_{10}^{13}$ ( °C )	
$\alpha_{20/120^\circ C}$ ( $10^{-7}/K$ )	59.02
$\alpha_{20/300^\circ C}$ ( $10^{-7}/K$ )	69.74

Mechanical Properties	
Hardness ( $10^7 Pa$ )	670
FA (Relative Abrasion)	1.28
Young's Modulus ( $10^7 Pa$ )	12480
Rigidity Modulus ( $10^7 Pa$ )	4810
Poisson's Ratio	0.293

Photoelastic Constant	
$\beta$ ( $10^{-12}/Pa$ )	2.25

Color	
$\lambda_{80}/\lambda_5$	43/35

Specific Gravity	
$\rho$ ( $g/cm^3$ )	4.54

Internal Transmittance		
$\lambda$ ( nm )	$\tau_{5mm}$	$\tau_{10mm}$
2400	0.85	0.72
2200	0.95	0.903
2000	0.979	0.958
1800	0.988	0.976
1600	0.992	0.984
1400	0.998	0.997
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	0.998	0.997
700	0.998	0.996
650	0.997	0.995
600	0.997	0.995
550	0.997	0.994
500	0.993	0.987
480	0.99	0.98
460	0.986	0.972
440	0.98	0.96
420	0.971	0.942
400	0.943	0.89
390	0.917	0.84
380	0.87	0.75
370	0.78	0.61
360	0.64	0.41
350	0.41	0.17
340	0.14	0.02
330		
320		
310		
300		
290		
280		



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