

H-ZBaF3 657511

nd =1.65691	vd =51.12	nF – nC =0.01285
ne =1.65996	ve =50.88	nF' - nc' =0.01297

Refractive Indices		
	λ (nm)	
n_r	706.5	1.65091
n_c	656.3	1.65306
$n_{c'}$	643.8	1.65368
n_{He-Ne}	632.8	1.65424
n_D	589.3	1.6568
n_d	587.6	1.65691
n_e	546.1	1.65996
n_F	486.1	1.66591
$n_{F'}$	480.0	1.66665
n_g	435.8	1.67306
n_h	404.7	1.67908
n_i	365.0	1.68949

Constants of Dispersion (Cauchy)	
A_0	2.6855889
A_1	$-4.87510301 \times 10^{-3}$
A_2	$2.12676301 \times 10^{-2}$
A_3	$-1.81022331 \times 10^{-4}$
A_4	$6.19144881 \times 10^{-5}$
A_5	$-1.94835641 \times 10^{-6}$

Relative Partial Dispersions			
$P_{d,c}$	0.2996	$P'_{d,c'}$	0.249
$P_{e,d}$	0.2374	$P'_{e,d}$	0.2352
$P_{g,F}$	0.5564	$P'_{g,F'}$	0.4942

Deviation of Relative Partial Dispersions	
$\Delta P_{F,e}$	0.0011
$\Delta P_{g,F}$	-0.0023

NHG	HOYA	OHARA	SCHOTT
H-ZBaF3			

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

Thermal Properties	
T_g (°C)	641
T_s (°C)	693
$T_{10}^{14.5}$ (°C)	589
T_{10}^{13} (°C)	626
$\alpha_{20/120^\circ C}$ ($10^{-7}/K$)	76.67
$\alpha_{20/300^\circ C}$ ($10^{-7}/K$)	82.12

Mechanical Properties	
Hardness ($10^7 Pa$)	508
FA (Relative Abrasion)	
Young's Modulus ($10^7 Pa$)	8592
Rigidity Modulus ($10^7 Pa$)	3359
Poisson's Ratio	0.279

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

Color	
λ_{80}/λ_5	38/34

Specific Gravity	
ρ (g/cm^3)	3.89

Internal Transmittance		
λ (nm)	τ_{5mm}	τ_{10mm}
2400	0.906	0.82
2200	0.956	0.914
2000	0.982	0.965
1800	0.991	0.982
1600	0.996	0.993
1400	0.997	0.995
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	0.998	0.996
800	0.997	0.994
700	0.996	0.992
650	0.995	0.991
600	0.995	0.991
550	0.995	0.991
500	0.994	0.988
480	0.992	0.985
460	0.991	0.982
440	0.989	0.979
420	0.987	0.974
400	0.977	0.954
390	0.963	0.928
380	0.938	0.88
370	0.88	0.78
360	0.76	0.58
350	0.54	0.29
340	0.21	0.05
330		
320		
310		
300		
290		
280		



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