

<b>H-ZBaF20</b>	<b>702412</b>
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nd =1.70154	vd =41.15	nF – nC =0.017049
ne =1.70559	ve =40.86	nF' - nc' =0.017270

Refractive Indices		
	$\lambda$ ( nm )	
$n_r$	706.5	1.69372
$n_c$	656.3	1.69651
$n_{c'}$	643.8	1.6973
$n_{He-Ne}$	632.8	1.69804
$n_D$	589.3	1.70139
$n_d$	587.6	1.70154
$n_e$	546.1	1.70559
$n_F$	486.1	1.71356
$n_{F'}$	480.0	1.71457
$n_g$	435.8	1.72339
$n_h$	404.7	1.73189
$n_i$	365.0	1.74719

Constants of Dispersion (Cauchy)	
$A_0$	2.821721
$A_1$	$-9.7265483 \times 10^{-3}$
$A_2$	$2.4345979 \times 10^{-2}$
$A_3$	$7.8406305 \times 10^{-4}$
$A_4$	$-2.2431497 \times 10^{-5}$
$A_5$	$4.6726029 \times 10^{-6}$

Relative Partial Dispersions			
$P_{d,c}$	0.295	$P'_{d,c'}$	0.2455
$P_{e,d}$	0.2375	$P'_{e,d}$	0.2345
$P_{g,F}$	0.5765	$P'_{g,F'}$	0.5107

Deviation of Relative Partial Dispersions	
$\Delta P_{F,e}$	0
$\Delta P_{g,F}$	0.0013

NHG	HOYA	OHARA	SCHOTT
H - ZBaF20	BAFD7	S - BAH27	N - BASF52

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

Thermal Properties	
$T_g$ ( °C )	594
$T_s$ ( °C )	657
$T_{10}^{14.5}$ ( °C )	550
$T_{10}^{13}$ ( °C )	591
$\alpha_{20/120^\circ C}$ ( $10^{-7}/K$ )	71
$\alpha_{20/300^\circ C}$ ( $10^{-7}/K$ )	85

Mechanical Properties	
Hardness ( $10^7 Pa$ )	594
FA (Relative Abrasion)	
Young's Modulus ( $10^7 Pa$ )	9679
Rigidity Modulus ( $10^7 Pa$ )	3820
Poisson's Ratio	0.267

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

Color	
$\lambda_{80}/\lambda_5$	40/35

Specific Gravity	
$\rho$ ( $g/cm^3$ )	3.64

Internal Transmittance		
$\lambda$ ( nm )	$\tau_{5mm}$	$\tau_{10mm}$
2400	0.956	0.914
2200	0.98	0.961
2000	0.993	0.986
1800	0.997	0.995
1600	0.999	0.998
1400	0.999	0.998
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	0.999	0.998
600	0.999	0.998
550	0.997	0.994
500	0.993	0.987
480	0.991	0.983
460	0.988	0.976
440	0.984	0.968
420	0.976	0.952
400	0.952	0.906
390	0.923	0.852
380	0.87	0.75
370	0.75	0.57
360	0.51	0.26
350	0.17	0.03
340		
330		
320		
310		
300		
290		
280		



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