

H-ZF3	717295
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nd =1.71736	vd =29.50	nF – nC =0.024318
ne =1.72310	ve =29.27	nF' - nc' =0.024707

Refractive Indices		
	λ (nm)	
n_r	706.5	1.70648
n_c	656.3	1.71032
$n_{c'}$	643.8	1.71142
n_{He-Ne}	632.8	1.71245
n_D	589.3	1.71715
n_d	587.6	1.71736
n_e	546.1	1.7231
n_F	486.1	1.73464
$n_{F'}$	480.0	1.73613
n_g	435.8	1.7493
n_h	404.7	1.76244
n_i	365.0	1.78736

Constants of Dispersion (Cauchy)	
A_0	2.8508499
A_1	$-1.3234610 \times 10^{-2}$
A_2	2.9415325×10^{-2}
A_3	2.5542666×10^{-3}
A_4	$-2.1232133 \times 10^{-4}$
A_5	2.2261936×10^{-5}

Relative Partial Dispersions			
$P_{d,c}$	0.2895	$P'_{d,c'}$	0.2404
$P_{e,d}$	0.236	$P'_{e,d'}$	0.2323
$P_{g,F}$	0.6028	$P'_{g,F'}$	0.533

Deviation of Relative Partial Dispersions	
$\Delta P_{F,e}$	0.0006
$\Delta P_{g,F}$	0.0082

NHG	HOYA	OHARA	SCHOTT
H-ZF3	E-FD15	S-TIH1	N-SF15

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

Thermal Properties	
T_g (°C)	591
T_s (°C)	628
$T_{10}^{14.5}$ (°C)	531
T_{10}^{13} (°C)	566
$\alpha_{20/120^\circ C}$ ($10^{-7}/K$)	93
$\alpha_{20/300^\circ C}$ ($10^{-7}/K$)	106

Mechanical Properties	
Hardness ($10^7 Pa$)	520
FA (Relative Abrasion)	
Young's Modulus ($10^7 Pa$)	8826
Rigidity Modulus ($10^7 Pa$)	3518
Poisson's Ratio	0.254

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

Color	
λ_{80}/λ_5	42/36

Specific Gravity	
ρ (g/cm^3)	3.06

Internal Transmittance		
λ (nm)	τ_{5mm}	τ_{10mm}
2400	0.94	0.883
2200	0.96	0.922
2000	0.98	0.96
1800	0.99	0.98
1600	0.998	0.997
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	0.998	0.996
650	0.996	0.994
600	0.996	0.993
550	0.995	0.991
500	0.991	0.982
480	0.988	0.976
460	0.984	0.968
440	0.979	0.958
420	0.966	0.934
400	0.923	0.852
390	0.87	0.75
380	0.73	0.53
370	0.44	0.19
360	0.09	0.01
350		
340		
330		
320		
310		
300		
290		
280		



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