

H-ZF5	740283
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nd =1.74000	vd =28.30	nF - nC =0.026152
ne =1.74617	ve =28.07	nF' - nc' =0.026584

Refractive Indices		
	λ (nm)	
n_r	706.5	1.72833
n_c	656.3	1.73245
$n_{c'}$	643.8	1.73363
n_{He-Ne}	632.8	1.73474
n_D	589.3	1.73977
n_d	587.6	1.74000
n_e	546.1	1.74617
n_F	486.1	1.75861
$n_{F'}$	480.0	1.76021
n_g	435.8	1.77450
n_h	404.7	1.78876
n_i	365.0	

Constants of Dispersion (Cauchy)	
A_0	2.9208758
A_1	$-1.4635592 \times 10^{-2}$
A_2	3.1884902×10^{-2}
A_3	2.7717897×10^{-3}
A_4	$-2.3240893 \times 10^{-4}$
A_5	2.5957500×10^{-5}

Relative Partial Dispersions			
$P_{d,c}$	0.2889	$P'_{d,c'}$	0.24
$P_{e,d}$	0.2363	$P'_{e,d}$	0.2325
$P_{g,F}$	0.6015	$P'_{g,F'}$	0.5319

Deviation of Relative Partial Dispersions	
$\Delta P_{F,e}$	0.0002
$\Delta P_{g,F}$	0.0049

NHG	HOYA	OHARA	SCHOTT
H - ZF5		S - TIH3	

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

Thermal Properties	
T_g (°C)	612
T_s (°C)	637
$T_{10}^{14.5}$ (°C)	550
T_{10}^{13} (°C)	583
$\alpha_{20/120^\circ C}$ ($10^{-7}/K$)	93
$\alpha_{20/300^\circ C}$ ($10^{-7}/K$)	108

Mechanical Properties	
Hardness ($10^7 Pa$)	563
FA (Relative Abrasion)	
Young's Modulus ($10^7 Pa$)	9061
Rigidity Modulus ($10^7 Pa$)	3604
Poisson's Ratio	0.275

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

Color	
λ_{80}/λ_5	42/36

Specific Gravity	
ρ (g/cm^3)	3.16

Internal Transmittance		
λ (nm)	τ_{5mm}	τ_{10mm}
2400	0.94	0.884
2200	0.962	0.925
2000	0.982	0.965
1800	0.99	0.981
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	0.997	0.995
650	0.997	0.994
600	0.997	0.994
550	0.996	0.992
500	0.992	0.985
480	0.99	0.98
460	0.987	0.974
440	0.981	0.963
420	0.969	0.938
400	0.926	0.857
390	0.87	0.75
380	0.73	0.54
370	0.42	0.18
360		
350		
340		
330		
320		
310		
300		
290		
280		



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