

H-ZF50 741278

nd =1.74077	vd =27.76	nF - nC =0.026685
ne =1.74707	ve =27.54	nF' - nc' =0.027125

Refractive Indices		
	λ (nm)	
n_r	706.5	1.72888
n_c	656.3	1.73307
$n_{c'}$	643.8	1.73427
n_{He-Ne}	632.8	1.7354
n_D	589.3	1.74054
n_d	587.6	1.74077
n_e	546.1	1.74707
n_F	486.1	1.75976
$n_{F'}$	480.0	1.76139
n_g	435.8	1.77597
n_h	404.7	1.79055
n_i	365.0	

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

Internal Transmittance		
λ (nm)	τ_{5mm}	τ_{10mm}
2400	0.95	0.9
2200	0.965	0.932
2000	0.983	0.967
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	0.998	0.997
800	0.998	0.997
700	0.997	0.995
650	0.996	0.993
600	0.996	0.993
550	0.995	0.991
500	0.989	0.978
480	0.984	0.969
460	0.978	0.957
440	0.969	0.938
420	0.948	0.899
400	0.89	0.79
390	0.82	0.67
380	0.66	0.43
370	0.33	0.11
360		
350		
340		
330		
320		
310		
300		
290		
280		

Thermal Properties	
Tg (°C)	610
Ts (°C)	650
T ₁₀ ^{14.5} (°C)	553
T ₁₀ ¹³ (°C)	584
$\alpha_{20/120^\circ C}$ (10 ⁻⁷ /K)	84.3
$\alpha_{20/300^\circ C}$ (10 ⁻⁷ /K)	96.42

Constants of Dispersion (Cauchy)	
A ₀	2.9205906
A ₁	-1.3681618×10 ⁻²
A ₂	3.2567760×10 ⁻²
A ₃	2.8725519×10 ⁻³
A ₄	-2.4277107×10 ⁻⁴
A ₅	2.6614514×10 ⁻⁵

Mechanical Properties	
Hardness (10 ⁷ Pa)	528
FA (Relative Abrasion)	
Young's Modulus (10 ⁷ Pa)	8880
Rigidity Modulus (10 ⁷ Pa)	3538
Poisson's Ratio	0.255

Relative Partial Dispersions			
P _{d,c}	0.2885	P' _{d,c'}	0.2397
P _{e,d}	0.236	P' _{e,d}	0.2323
P _{g,F}	0.6073	P' _{g,F'}	0.5376

Photoelastic Constant	
β (10 ⁻¹² /Pa)	

Deviation of Relative Partial Dispersions	
$\Delta P_{F,e}$	0.0006
$\Delta P_{g,F}$	0.0099

Color	
λ_{80}/λ_5	43/37

Specific Gravity	
ρ (g/cm ³)	3.05

NHG	HOYA	OHARA	SCHOTT
H - ZF50	E - FD13	S - TIH13	



Naked Optics Corp.
 16 Mt. Bethel Rd. #374
 Warren, NJ 07059
 908-685-0352 (ph) . 908-325-0250 (fax)