

ZF1	648338
------------	---------------

nd =1.64769	vd =33.84	nF - nC =0.01914
ne =1.65222	ve =33.58	nF' - nc' =0.019421

Refractive Indices		
	λ (nm)	
n_r	706.5	1.63902
n_c	656.3	1.6421
$n_{c'}$	643.8	1.64297
n_{He-Ne}	632.8	1.6438
n_D	589.3	1.64753
n_d	587.6	1.64769
n_e	546.1	1.65223
n_F	486.1	1.66124
$n_{F'}$	480.0	1.66239
n_g	435.8	1.67251
n_h	404.7	1.68236
n_i	365.0	1.70035

Constants of Dispersion (Cauchy)	
A_0	2.6356161
A_1	$-8.83964201 \times 10^{-3}$
A_2	$2.56447811 \times 10^{-2}$
A_3	$9.65223741 \times 10^{-4}$
A_4	$-1.83047981 \times 10^{-5}$
A_5	$5.55635171 \times 10^{-6}$

Relative Partial Dispersions			
$P_{d,c}$	0.2921	$P'_{d,c'}$	0.243
$P_{e,d}$	0.2372	$P'_{e,d}$	0.2338
$P_{g,F}$	0.5888	$P'_{g,F'}$	0.5211

Deviation of Relative Partial Dispersions	
$\Delta P_{F,e}$	-0.0008
$\Delta P_{g,F}$	0.0014

NHG	HOYA	OHARA	SCHOTT
ZF1	FD2	PBM22	SF2

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

Thermal Properties	
T_g (°C)	427
T_s (°C)	479
$T_{10}^{14.5}$ (°C)	425
T_{10}^{13} (°C)	437
$\alpha_{20/120^\circ C}$ ($10^{-7}/K$)	85.07
$\alpha_{20/300^\circ C}$ ($10^{-7}/K$)	100.04

Mechanical Properties	
Hardness ($10^7 Pa$)	410
FA (Relative Abrasion)	0.57
Young's Modulus ($10^7 Pa$)	5330
Rigidity Modulus ($10^7 Pa$)	2160
Poisson's Ratio	0.235

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

Color	
λ_{80}/λ_5	36/33

Specific Gravity	
ρ (g/cm^3)	3.85

Internal Transmittance		
λ (nm)	τ_{5mm}	τ_{10mm}
2400	0.949	0.9
2200	0.96	0.922
2000	0.97	0.941
1800	0.988	0.976
1600	0.996	0.992
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	0.999	0.998
500	0.998	0.997
480	0.998	0.996
460	0.997	0.994
440	0.996	0.992
420	0.994	0.989
400	0.99	0.981
390	0.984	0.969
380	0.976	0.953
370	0.963	0.928
360	0.93	0.87
350	0.85	0.73
340	0.66	0.43
330	0.28	0.08
320		
310		
300		
290		
280		



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