

ZF7L 805255

nd =1.80518	vd =25.46	nF - nC =0.031620
ne =1.81265	ve =25.27	nF' - nc' =0.032161

Refractive Indices		
	λ (nm)	
n_r	706.5	1.79120
n_c	656.3	1.79611
$n_{c'}$	643.8	1.79752
n_{He-Ne}	632.8	1.79885
n_D	589.3	1.80491
n_d	587.6	1.80518
n_e	546.1	1.81265
n_F	486.1	1.82773
$n_{F'}$	480.0	1.82968
n_g	435.8	1.84701
n_h	404.7	1.86430
n_i	365.0	1.89708

Constants of Dispersion (Cauchy)	
A_0	3.1215977
A_1	$-1.18717361 \times 10^{-2}$
A_2	$4.00858731 \times 10^{-2}$
A_3	$3.49881391 \times 10^{-3}$
A_4	$-2.58404031 \times 10^{-4}$
A_5	$2.84152901 \times 10^{-5}$

Relative Partial Dispersions			
$P_{d,c}$	0.2868	$P'_{d,c'}$	0.2382
$P_{e,d}$	0.2362	$P'_{e,d}$	0.2323
$P_{g,F}$	0.6097	$P'_{g,F'}$	0.5389

Deviation of Relative Partial Dispersions	
$\Delta P_{F,e}$	0.0008
$\Delta P_{g,F}$	0.0084

NHG	HOYA	OHARA	SCHOTT
ZF7L	FD6		

Chemical Properties	
	Group
RC(S)	1
RA(S)	3
DW	1
DA	4

Thermal Properties	
T_g (°C)	431
T_s (°C)	479
$T_{10}^{14.5}$ (°C)	
T_{10}^{13} (°C)	
$\alpha_{20/120^\circ C}$ ($10^{-7}/K$)	76.06
$\alpha_{20/300^\circ C}$ ($10^{-7}/K$)	83.87

Mechanical Properties	
Hardness ($10^7 Pa$)	330
FA (Relative Abrasion)	0.5
Young's Modulus ($10^7 Pa$)	5484
Rigidity Modulus ($10^7 Pa$)	2237
Poisson's Ratio	0.226

Stress-Optical Coefficient	
B ($10^{-12}/Pa$)	

Color	
λ_{80}/λ_5	43/36

Specific Gravity	
ρ (g/cm^3)	5.17

Internal Transmittance		
λ (nm)	τ_{5mm}	τ_{10mm}
2400	0.95	0.903
2200	0.965	0.931
2000	0.98	0.96
1800	0.99	0.98
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	0.998	0.996
700	0.997	0.995
650	0.997	0.995
600	0.997	0.995
550	0.997	0.994
500	0.994	0.989
480	0.991	0.982
460	0.986	0.973
440	0.977	0.955
420	0.956	0.914
400	0.9	0.81
390	0.84	0.71
380	0.75	0.56
370	0.57	0.32
360	0.28	0.08
350		
340		
330		
320		
310		
300		
290		
280		



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