

F3	617366
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nd =1.61659	vd =36.61	nF - nC =0.016840
ne =1.62058	ve =36.35	nF' - nc' =0.017071

Refractive Indices		
	λ (nm)	
n_r	706.5	1.60891
n_c	656.3	1.61164
$n_{c'}$	643.8	1.61242
n_{He-Ne}	632.8	1.61315
n_D	589.3	1.61644
n_d	587.6	1.61659
n_e	546.1	1.62058
n_F	486.1	1.62848
$n_{F'}$	480.0	1.62949
n_g	435.8	1.63829
n_h	404.7	1.6468
n_i	365.0	1.66218

Constants of Dispersion (Cauchy)	
A_0	2.5449193
A_1	$-8.6447716 \times 10^{-3}$
A_2	2.2415946×10^{-2}
A_3	7.7643458×10^{-4}
A_4	$-1.1954050 \times 10^{-5}$
A_5	3.8257209×10^{-6}

Relative Partial Dispersions			
$P_{d,c}$	0.2939	$P'_{d,c'}$	0.2443
$P_{e,d}$	0.2369	$P'_{e,d'}$	0.2337
$P_{g,F}$	0.5825	$P'_{g,F'}$	0.5155

Deviation of Relative Partial Dispersions	
$\Delta P_{F,e}$	-0.0009
$\Delta P_{g,F}$	-0.0002

NHG	HOYA	OHARA	SCHOTT
F3	F4	PBM4	F4

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

Thermal Properties	
T_g (°C)	430
T_s (°C)	490
$T_{10}^{14.5}$ (°C)	
T_{10}^{13} (°C)	
$\alpha_{20/120^\circ C}$ ($10^{-7}/K$)	84
$\alpha_{20/300^\circ C}$ ($10^{-7}/K$)	92

Mechanical Properties	
Hardness ($10^7 Pa$)	430
FA (Relative Abrasion)	0.63
Young's Modulus ($10^7 Pa$)	5608
Rigidity Modulus ($10^7 Pa$)	2307
Poisson's Ratio	0.215

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

Color	
λ_{80}/λ_5	35/32

Other Properties	
ρ (g/cm^3)	3.57

Internal Transmittance		
λ (nm)	τ_{5mm}	τ_{10mm}
2400	0.915	0.837
2200	0.94	0.884
2000	0.97	0.941
1800	0.982	0.964
1600	0.994	0.988
1400	0.998	0.996
1200	0.998	0.996
1060	0.998	0.996
1000	0.998	0.996
950	0.998	0.996
900	0.998	0.996
850	0.998	0.996
800	0.998	0.996
700	0.999	0.998
650	0.999	0.998
600	0.999	0.998
550	0.999	0.998
500	0.999	0.998
480	0.998	0.996
460	0.998	0.996
440	0.997	0.994
420	0.996	0.992
400	0.994	0.989
390	0.989	0.979
380	0.982	0.965
370	0.977	0.955
360	0.962	0.925
350	0.929	0.863
340	0.85	0.72
330	0.63	0.4
320	0.22	0.05
310		
300		
290		
280		



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