

<b>F1</b>	<b>603380</b>
-----------	---------------

nd =1.60342	vd =38.01	nF - nC =0.015873
ne =1.60718	ve =37.75	nF' - nc' =0.016084

Refractive Indices		
	$\lambda$ ( nm )	
$n_r$	706.5	1.59615
$n_c$	656.3	1.59874
$n_{c'}$	643.8	1.59947
$n_{He-Ne}$	632.8	1.60016
$n_D$	589.3	1.60328
$n_d$	587.6	1.60342
$n_e$	546.1	1.60718
$n_F$	486.1	1.61461
$n_{F'}$	480.0	1.61556
$n_g$	435.8	1.62380
$n_h$	404.7	1.63174
$n_i$	365.0	1.64602

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

Internal Transmittance		
$\lambda$ ( nm )	$\tau_{5mm}$	$\tau_{10mm}$
2400	0.927	0.86
2200	0.95	0.903
2000	0.98	0.96
1800	0.985	0.97
1600	0.99	0.98
1400	0.998	0.996
1200	0.998	0.996
1060	0.998	0.997
1000	0.998	0.997
950	0.999	0.998
900	0.999	0.999
850	0.999	0.999
800	0.999	0.999
700	0.999	0.999
650	0.999	0.999
600	0.999	0.999
550	0.999	0.999
500	0.999	0.999
480	0.999	0.999
460	0.999	0.999
440	0.998	0.997
420	0.998	0.996
400	0.998	0.996
390	0.995	0.99
380	0.992	0.985
370	0.989	0.979
360	0.979	0.958
350	0.95	0.9
340	0.87	0.75
330	0.64	0.4
320	0.23	0.05
310		
300		
290		
280		

Thermal Properties	
Tg ( °C )	436
T <sub>S</sub> ( °C )	470
T <sub>10</sub> <sup>14.5</sup> ( °C )	405
T <sub>10</sub> <sup>13</sup> ( °C )	430
$\alpha_{20/120^\circ C}$ ( 10 <sup>-7</sup> /K )	77
$\alpha_{20/300^\circ C}$ ( 10 <sup>-7</sup> /K )	84

Constants of Dispersion (Cauchy)	
A <sub>0</sub>	2.517622514
A <sub>1</sub>	-1.6616747×10 <sup>-2</sup>
A <sub>2</sub>	1.5742437×10 <sup>-2</sup>
A <sub>3</sub>	-1.9692260×10 <sup>-3</sup>
A <sub>4</sub>	-1.5236734×10 <sup>-4</sup>
A <sub>5</sub>	9.2290952×10 <sup>-6</sup>

Mechanical Properties	
Hardness ( 10 <sup>7</sup> Pa )	445
FA (Relative Abrasion)	0.63
Young's Modulus (10 <sup>7</sup> Pa)	5730
Rigidity Modulus (10 <sup>7</sup> Pa)	2340
Poisson's Ratio	0.224

Relative Partial Dispersions			
P <sub>d,c</sub>	0.2949	P' <sub>d,c'</sub>	0.2455
P <sub>e,d</sub>	0.2369	P' <sub>e,d'</sub>	0.2337
P <sub>g,F</sub>	0.5791	P' <sub>g,F'</sub>	0.5121

Photoelastic Constant	
B ( 10 <sup>-12</sup> /Pa )	

Color	
$\lambda_{80}/\lambda_5$	35/32

Deviation of Relative Partial Dispersions	
$\Delta P_{F,e}$	-0.001
$\Delta P_{g,F}$	-0.0014

Specific Gravity	
$\rho$ ( g/cm <sup>3</sup> )	3.45

NHG	HOYA	OHARA	SCHOTT
F1	F5	PBM5	F5



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