

<b>H-F1</b>	<b>603380</b>
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nd =1.60342	vd =38.01	nF – nC =0.015875
ne =1.60718	ve =37.74	nF' - nc' =0.016088

Refractive Indices		
	$\lambda$ ( nm )	
$n_r$	706.5	1.59615
$n_c$	656.3	1.59874
$n_{c'}$	643.8	1.59948
$n_{He-Ne}$	632.8	1.60017
$n_D$	589.3	1.60328
$n_d$	587.6	1.60342
$n_e$	546.1	1.60718
$n_F$	486.1	1.61462
$n_{F'}$	480.0	1.61557
$n_g$	435.8	1.62387
$n_h$	404.7	1.63195
$n_i$	365.0	1.64678

Constants of Dispersion (Cauchy)	
$A_0$	2.5095673
$A_1$	$-1.08626611 \times 10^{-2}$
$A_2$	$1.98947741 \times 10^{-2}$
$A_3$	$1.01371341 \times 10^{-3}$
$A_4$	$-6.26971171 \times 10^{-5}$
$A_5$	$7.50800451 \times 10^{-6}$

Relative Partial Dispersions			
$P_{d,c}$	0.2947	$P'_{d,c'}$	0.2449
$P_{e,d}$	0.2368	$P'_{e,d}$	0.2337
$P_{g,F}$	0.5825	$P'_{g,F'}$	0.5158

Deviation of Relative Partial Dispersions	
$\Delta P_{F,e}$	-0.0007
$\Delta P_{g,F}$	0.002

NHG	HOYA	OHARA	SCHOTT
H-F1	E-F5	S-TiM5	

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

Thermal Properties	
$T_g$ ( °C )	592
$T_s$ ( °C )	640
$T_{10}^{14.5}$ ( °C )	527
$T_{10}^{13}$ ( °C )	565
$\alpha_{20/120^\circ C}$ ( $10^{-7}/K$ )	81
$\alpha_{20/300^\circ C}$ ( $10^{-7}/K$ )	92

Mechanical Properties	
Hardness ( $10^7 Pa$ )	438
FA (Relative Abrasion)	0.79
Young's Modulus ( $10^7 Pa$ )	7847
Rigidity Modulus ( $10^7 Pa$ )	3197
Poisson's Ratio	0.227

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

Color	
$\lambda_{80}/\lambda_5$	39/36

Specific Gravity	
$\rho$ ( $g/cm^3$ )	2.63

Internal Transmittance		
$\lambda$ ( nm )	$\tau_{5mm}$	$\tau_{10mm}$
2400	0.934	0.873
2200	0.944	0.892
2000	0.976	0.953
1800	0.987	0.975
1600	0.997	0.994
1400	0.999	0.998
1200	0.999	0.998
1060	0.999	0.998
1000	0.998	0.996
950	0.997	0.995
900	0.997	0.995
850	0.998	0.996
800	0.996	0.992
700	0.994	0.988
650	0.992	0.985
600	0.993	0.987
550	0.993	0.987
500	0.99	0.98
480	0.988	0.976
460	0.986	0.972
440	0.983	0.967
420	0.98	0.961
400	0.963	0.928
390	0.934	0.873
380	0.87	0.75
370	0.7	0.49
360	0.34	0.12
350		
340		
330		
320		
310		
300		
290		
280		



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