

H-LaF2 717479

nd =1.71700	vd =47.89	nF - nC =0.014972
ne =1.72056	ve =47.65	nF' - nc' =0.015122

Refractive Indices		
	λ (nm)	
n_r	706.5	1.70994
n_c	656.3	1.71248
$n_{c'}$	643.8	1.7132
n_{He-Ne}	632.8	1.71387
n_D	589.3	1.71687
n_d	587.6	1.717
n_e	546.1	1.72056
n_F	486.1	1.72745
$n_{F'}$	480.0	1.72832
n_g	435.8	1.73578
n_h	404.7	1.74281
n_i	365.0	1.7551

Chemical Properties	
	Group
RC(S)	1
RA(S)	3
DW	1
DA	6

Internal Transmittance		
λ (nm)	τ_{5mm}	τ_{10mm}
2400	0.89	0.8
2200	0.956	0.913
2000	0.982	0.965
1800	0.992	0.984
1600	0.999	0.998
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	0.998	0.997
650	0.998	0.996
600	0.998	0.996
550	0.997	0.995
500	0.996	0.993
480	0.995	0.991
460	0.993	0.987
440	0.992	0.984
420	0.989	0.978
400	0.977	0.954
390	0.962	0.925
380	0.934	0.873
370	0.88	0.77
360	0.77	0.59
350	0.57	0.32
340	0.26	0.07
330		
320		
310		
300		
290		
280		

Thermal Properties	
Tg (°C)	666
T _S (°C)	704
T ₁₀ ^{14.5} (°C)	612
T ₁₀ ¹³ (°C)	650
$\alpha_{20/120^\circ C}$ (10 ⁻⁷ /K)	79
$\alpha_{20/300^\circ C}$ (10 ⁻⁷ /K)	91

Constants of Dispersion (Cauchy)	
A ₀	2.876089
A ₁	-9.33006×10 ⁻³
A ₂	2.747280×10 ⁻²
A ₃	-1.005835×10 ⁻³
A ₄	1.90267×10 ⁻⁴
A ₅	-7.71124×10 ⁻⁶

Mechanical Properties	
Hardness (10 ⁷ Pa)	561
FA (Relative Abrasion)	
Young's Modulus (10 ⁷ Pa)	9061
Rigidity Modulus (10 ⁷ Pa)	3524
Poisson's Ratio	0.286

Relative Partial Dispersions			
P _{d,c}	0.3019	P' _{d,c'}	0.2513
P _{e,d}	0.2378	P' _{e,d'}	0.2354
P _{g,F}	0.5564	P' _{g,F'}	0.4934

Photoelastic Constant	
β (10 ⁻¹² /Pa)	

Deviation of Relative Partial Dispersions	
$\Delta P_{F,e}$	-0.0035
$\Delta P_{g,F}$	-0.0076

Color	
λ_{80}/λ_5	39/34

Specific Gravity	
ρ (g/cm ³)	4.25

NHG	HOYA	OHARA	SCHOTT
H - LaF2	LAF3	S - LAM3	N - LAF3



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