

H-LaF4 750350

nd =1.74950	vd =35.04	nF - nC =0.021390
ne =1.75456	ve =34.77	nF' - nc' =0.021700

Refractive Indices		
	λ (nm)	
n_r	706.5	1.73980
n_c	656.3	1.74325
$n_{c'}$	643.8	1.74422
n_{He-Ne}	632.8	1.74515
n_D	589.3	1.74931
n_d	587.6	1.74950
n_e	546.1	1.75456
n_F	486.1	1.76464
$n_{F'}$	480.0	1.76592
n_g	435.8	1.77727
n_h	404.7	1.78839
n_i	365.0	1.80904

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

Internal Transmittance		
λ (nm)	τ_{5mm}	τ_{10mm}
2400	0.943	0.89
2200	0.977	0.955
2000	0.988	0.977
1800	0.994	0.989
1600	0.998	0.997
1400	0.999	0.998
1200	0.999	0.998
1060	0.999	0.999
1000	0.999	0.998
950	0.999	0.998
900	0.998	0.997
850	0.998	0.996
800	0.997	0.995
700	0.995	0.99
650	0.994	0.989
600	0.99	0.98
550	0.989	0.978
500	0.983	0.966
480	0.979	0.959
460	0.975	0.95
440	0.969	0.939
420	0.958	0.917
400	0.93	0.87
390	0.9	0.81
380	0.85	0.72
370	0.74	0.55
360	0.49	0.24
350	0.1	0.01
340		
330		
320		
310		
300		
290		
280		

Thermal Properties	
Tg (°C)	620
Ts (°C)	670
T ₁₀ ^{14.5} (°C)	
T ₁₀ ¹³ (°C)	
$\alpha_{20/120^\circ C}$ (10 ⁻⁷ /K)	83
$\alpha_{20/300^\circ C}$ (10 ⁻⁷ /K)	91

Constants of Dispersion (Cauchy)	
A ₀	2.9704178
A ₁	-1.32906790×10 ⁻²
A ₂	2.83590060×10 ⁻²
A ₃	1.76617860×10 ⁻³
A ₄	-1.24534820×10 ⁻⁴
A ₅	1.39519370×10 ⁻⁵

Mechanical Properties	
Hardness (10 ⁷ Pa)	545
FA (Relative Abrasion)	
Young's Modulus (10 ⁷ Pa)	9105
Rigidity Modulus (10 ⁷ Pa)	3563
Poisson's Ratio	

Relative Partial Dispersions			
P _{d,c}	0.2922	P' _{d,c'}	0.2433
P _{e,d}	0.2366	P' _{e,d}	0.2332
P _{g,F}	0.5905	P' _{g,F'}	0.523

Photoelastic Constant	
β (10 ⁻¹² /Pa)	

Deviation of Relative Partial Dispersions	
$\Delta P_{F,e}$	0.0004
$\Delta P_{g,F}$	0.0051

Color	
λ_{80}/λ_5	43/36

Specific Gravity	
ρ (g/cm ³)	3.72

NHG	HOYA	OHARA	SCHOTT
H-LaF4	E-LaF7	S-NBH51	N-LaF7



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