

CDGM Optical Glass Products Database

H-K9L	517642	$n_d = 1.51680$	$v_d = 64.20$	$n_r - n_c = 0.008050$
		$n_e = 1.51872$	$v_e = 64.00$	$n_{r'} - n_{c'} = 0.008105$

Refractive Indices		
λ (nm)		
n_t	1014.0	1.50736
n_F	706.5	1.51289
n_c	656.3	1.51432
$n_{c'}$	643.8	1.51472
n_{He-Ne}	632.8	1.51509
n_D	589.3	1.51673
n_d	587.6	1.51680
n_e	546.1	1.51872
n_F	486.1	1.52237
$n_{F'}$	480.0	1.52282
n_g	435.8	1.52667
n_h	404.7	1.53022
n_i	365.0	1.53626

Constants of Dispersion Formula	
A_0	2.2691511
A_1	$-8.5158629 \times 10^{-3}$
A_2	1.2270445×10^{-2}
A_3	$-2.5168835 \times 10^{-4}$
A_4	4.8989821×10^{-5}
A_5	$-2.0672665 \times 10^{-6}$

Deviation of Relative Partial Dispersions ΔP from the "Normal Line"	
ΔP_{Fe}	-0.0014
$\Delta P_{g,F}$	-0.0023

Temperature Coefficients of Refractive Index						
Range of Temperature	dn/dt relative($10^{-6}/^{\circ}\text{C}$)					
	t	C'	d	e	F'	g
-40~-20	1.1	1.1	1.4	1.5	1.5	1.6
-20~0	0.9	1.4	1.7	1.7	1.9	2.6
0~20	1.1	1.6	1.5	1.6	2.0	1.8
20~40	1.3	1.5	1.6	1.7	1.8	2.7
40~60	1.2	1.6	2.0	2.1	2.4	2.4
60~80	1.4	1.4	1.6	1.5	2.1	2.7

Relative Partial Dispersions			
$P_{d,c}$	0.3080	$P'_{d,c'}$	0.2569
$P_{e,d}$	0.2387	$P'_{e,d'}$	0.2371
$P_{g,F}$	0.5341	$P'_{g,F'}$	0.4750

Chemical Properties	
	Grade
RC(S)	1
RA(S)	1
DW	3
DA	1

Thermal Properties	
T_g ($^{\circ}\text{C}$)	560
T_s ($^{\circ}\text{C}$)	620
$T_{10^{14.5}}$ ($^{\circ}\text{C}$)	511
$T_{10^{13}}$ ($^{\circ}\text{C}$)	547
$T_{10^{16}}$ ($^{\circ}\text{C}$)	
$\alpha_{20/120\text{C}}$ ($10^{-3}/\text{K}$)	83
$\alpha_{100/200\text{C}}$ ($10^{-3}/\text{K}$)	95
λ (W/m $\cdot$ K)	

Mechanical Properties	
H_K (10^7Pa)	595
F_A	
E (10^7Pa)	7920
G (10^7Pa)	3270
μ	0.211
B ($10^{-12}/\text{Pa}$)	

Other Properties	
ρ (g/cm 3)	2.52

Internal Transmittance		
λ (nm)	τ 5 mm	τ 10 mm
2400	0.86	0.74
2200	0.930	0.86
2000	0.960	0.922
1800	0.985	0.970
1600	0.990	0.980
1400	0.995	0.990
1200	0.998	0.996
1060	0.998	0.996
1000	0.998	0.997
950	0.998	0.997
900	0.999	0.998
850	0.999	0.998
800	0.999	0.999
700	0.999	0.999
650	0.999	0.998
600	0.999	0.999
550	0.999	0.999
500	0.999	0.998
480	0.999	0.998
460	0.999	0.998
440	0.999	0.997
420	0.999	0.998
400	0.999	0.998
390	0.998	0.997
380	0.997	0.993
370	0.997	0.993
360	0.994	0.988
350	0.989	0.977
340	0.977	0.954
330	0.95	0.91
320	0.90	0.81
310	0.80	0.63
300	0.61	0.38
290	0.36	0.13
280	0.14	0.02

Coloration Code	
λ_{20} / λ_s	33/29

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