

J-PKH1

$n_d = 1.518600$

$n_e = 1.520372$

$v_d = 69.89$

$v_e = 69.67$

Glass code (d)	519699
Glass code (e)	520697

Spectral l.	Refractive idx
2.058	1.49701
1.970	1.49826
1.530	1.50384
1.129	1.50840
1.064	1.50918
t	1.50980
s	1.51212
A'	1.513636
r	1.514988
C	1.516311
C'	1.516678
He-Ne	1.517020
D	1.518533
d	1.518600
e	1.520372
F	1.523731
F'	1.524147
g	1.527677
h	1.530922
0.389	1.532889
i	1.536397

Coef. disp. form. (pwr ser.)	
A0	2.27892705E+00
A1	-9.04327622E-03
A2	-1.10679206E-04
A3	1.01870033E-02
A4	9.31149884E-05
A5	2.72256540E-06
A6	-1.82952398E-08
A7	0.00000000E+00
A8	0.00000000E+00

Partial dispersion	
F-C	0.007420
F'-C'	0.007469
C-t	0.006510
C-A'	0.002675
d-C	0.002289
e-C	0.004061
g-d	0.009077
g-F	0.003946
h-g	0.003245
i-g	0.008720
C'-t	0.006877
e-C'	0.003694
F'-e	0.003775
i-F'	0.012250

Relative partial dispersion	
C-t/F-C	0.8774
C-A'/F-C	0.3605
d-C/F-C	0.3085
e-C/F-C	0.5473
g-d/F-C	1.2233
g-F/F-C	0.5318
h-g/F-C	0.4373
i-g/F-C	1.1752
C'-t/F'-C'	0.9207
e-C'/F'-C'	0.4946
F'-e/F'-C'	0.5054
i-F'/F'-C'	1.6401

Deviation of relative partial disp.	
ΔPdC	-0.0003
ΔPgF	0.0047

Internal CC (80%/5%)	
315/273	

Color Code (80%/5%)	
320/275	

CCI	
B	0.00
G	0.20
R	0.22

Thermal properties	
CTE(-30,70) [1E-7/°C]	63
CTE(100,300) [1E-7/°C]	75
Tg [°C]	572
At [°C]	612
Ht condct. [W/m·K]	0.860
Sp. heat [kJ/kg·K]	0.777
Ht diffus. [1E-6 m2/sec]	0.425

Chemical properties [class]	
Acid res. (surface)	1
Alkaline detergent res.	3
Climate resistance	2
Water res. (powder)	1
Acid res. (powder)	1

Mechanical properties	
Knoop hardness	536 (5)
Abrasion hardness	188
Young's mod. [GPa]	73.1
Shear mod. [GPa]	29.8
Poisson's ratio	0.224
Stress optical coef. [1E-5 nm/cm/Pa]	2.78

Internal trans. (10mm)	
λ [nm]	τ
280	0.12
290	0.31
300	0.54
310	0.73
320	0.86
330	0.925
340	0.960
350	0.976
360	0.983
370	0.988
380	0.991
390	0.994
400	0.995
420	0.995
440	0.994
460	0.995
480	0.995
500	0.996
550	0.999
600	0.999
650	0.999
700	0.998
800	0.997
900	0.996
1000	0.996
1200	0.996
1400	0.992
1600	0.963
1800	0.904
2000	0.84
2200	0.70
2400	0.64

Specific gravity	
2.6	

Relative $\Delta n / \Delta T$ [1E-6/°C]																
Temp. [°C]	1.083	t	s	A'	r	C	C'	He-Ne	d	e	F	F'	g	h	0.389	
80 to 90 (ref.)	3.6	3.6	3.7	3.8	3.9	4.0	4.0	4.0	4.1	4.2	4.4	4.5	4.7	5.0	5.1	
60 to 80 (ref.)	3.5	3.5	3.6	3.7	3.8	3.8	3.8	3.9	3.9	4.1	4.3	4.3	4.6	4.8	4.9	
40 to 60	3.3	3.4	3.5	3.5	3.6	3.7	3.7	3.7	3.8	3.9	4.1	4.1	4.4	4.6	4.8	
20 to 40	3.2	3.2	3.3	3.4	3.5	3.5	3.5	3.6	3.6	3.7	4.0	4.0	4.2	4.5	4.6	
0 to 20	3.1	3.2	3.2	3.3	3.4	3.4	3.4	3.5	3.5	3.6	3.9	3.9	4.1	4.4	4.5	
-20 to 0	3.1	3.1	3.2	3.3	3.3	3.4	3.4	3.4	3.5	3.6	3.8	3.8	4.1	4.3	4.4	
-40 to -20	3.1	3.1	3.2	3.3	3.3	3.4	3.4	3.4	3.5	3.6	3.8	3.8	4.1	4.3	4.4	
-60 to -40 (ref.)	3.2	3.2	3.3	3.4	3.4	3.5	3.5	3.5	3.6	3.7	3.9	3.9	4.1	4.4	4.5	
-70 to -60 (ref.)	3.4	3.4	3.5	3.5	3.6	3.6	3.6	3.7	3.7	3.8	4.0	4.0	4.3	4.5	4.6	

Absolute $\Delta n / \Delta T$ [1E-6/°C]																
Temp. [°C]	1.083	t	s	A'	r	C	C'	He-Ne	d	e	F	F'	g	h	0.389	
80 to 90	2.7	2.7	2.8	2.9	2.9	3.0	3.0	3.0	3.1	3.2	3.5	3.5	3.8	4.0	4.1	
60 to 80	2.5	2.5	2.6	2.7	2.7	2.8	2.8	2.8	2.9	3.0	3.2	3.3	3.5	3.8	3.9	
40 to 60	2.2	2.2	2.3	2.4	2.4	2.5	2.5	2.5	2.6	2.7	2.9	3.0	3.2	3.4	3.6	
20 to 40	1.9	1.9	2.0	2.1	2.1	2.2	2.2	2.2	2.3	2.4	2.6	2.7	2.9	3.1	3.2	
0 to 20	1.6	1.7	1.7	1.8	1.9	1.9	1.9	1.9	2.0	2.1	2.3	2.3	2.6	2.8	2.9	
-20 to 0	1.4	1.4	1.5	1.5	1.6	1.6	1.6	1.7	1.7	1.8	2.0	2.0	2.3	2.5	2.6	
-40 to -20	1.1	1.1	1.2	1.2	1.3	1.3	1.3	1.4	1.4	1.5	1.7	1.7	2.0	2.2	2.3	
-60 to -40	0.8	0.8	0.9	0.9	1.0	1.0	1.1	1.1	1.1	1.2	1.4	1.4	1.6	1.8	1.9	
-70 to -60	0.6	0.6	0.7	0.7	0.8	0.8	0.8	0.8	0.9	1.0	1.2	1.2	1.4	1.6	1.7	

Coef. disp. form. (frac. eq.) (ref.)	
P1	1.14576746E-01
Q1	7.69727154E+01
P2	1.10968918E-02
Q2	2.34302770E-02
P3	2.87809559E-01
Q3	4.87585612E-03

Fitting error of disp. form. σ [1E-6]		
	Visible	Infrared
Power ser. eq.	0.5	5.2
Frac. eq. (ref.)	0.5	5.2

Prod. Freq. (A to D)	C
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Similar glass type			
OHARA	-	HOYA	-
CDGM	-	SCHOTT	-

2019-4-1	Transmittance
2017-4-1	Prod. Freq
2016-4-1	Similar glass type