

J-SK4

$n_d = 1.612720$

$n_e = 1.615216$

$v_d = 58.54$

$v_e = 58.27$

Glass code (d)	613585
Glass code (e)	615583

Spectral l.	Refractive idx
2.058	1.58718
1.970	1.58846
1.530	1.59426
1.129	1.59934
1.064	1.60026
t	1.60101
s	1.60393
A'	1.605913
r	1.607730
C	1.609539
C'	1.610045
He-Ne	1.610518
D	1.612627
d	1.612720
e	1.615216
F	1.620006
F'	1.620603
g	1.625707
h	1.630445
0.389	1.633337
i	1.638532

Coef. disp. form. (pwr ser.)	
A0	2.55820861E+00
A1	-9.63062190E-03
A2	-1.05056878E-04
A3	1.52842971E-02
A4	1.88241434E-04
A5	5.74199467E-06
A6	3.67306869E-08
A7	0.00000000E+00
A8	0.00000000E+00

Partial dispersion	
F-C	0.010467
F'-C'	0.010558
C-t	0.008525
C-A'	0.003626
d-C	0.003181
e-C	0.005677
g-d	0.012987
g-F	0.005701
h-g	0.004738
i-g	0.012825
C'-t	0.009031
e-C'	0.005171
F'-e	0.005387
i-F'	0.017929

Relative partial dispersion	
C-t/F-C	0.8145
C-A'/F-C	0.3464
d-C/F-C	0.3039
e-C/F-C	0.5424
g-d/F-C	1.2408
g-F/F-C	0.5447
h-g/F-C	0.4527
i-g/F-C	1.2253
C'-t/F'-C'	0.8554
e-C'/F'-C'	0.4898
F'-e/F'-C'	0.5102
i-F'/F'-C'	1.6981

Deviation of relative partial disp.	
ΔPdC	0.0003
ΔPgF	-0.0015

Internal CC (80%/5%)	
352/315	

Color Code (80%/5%)	
360/315	

CCI	
B	0.00
G	0.21
R	0.18

Thermal properties	
CTE(-30,70) [1E-7/°C]	62
CTE(100,300) [1E-7/°C]	75
Tg [°C]	652
At [°C]	694
Ht condct. [W/m·K]	0.884
Sp. heat [kJ/kg·K]	0.538
Ht diffus. [1E-6 m2/sec]	0.460

Chemical properties [class]	
Acid res. (surface)	4
Alkaline detergent res.	2
Climate resistance	2
Water res. (powder)	2
Acid res. (powder)	3

Mechanical properties	
Knoop hardness	485 (5)
Abrasion hardness	106
Young's mod. [GPa]	82.4
Shear mod. [GPa]	32.5
Poisson's ratio	0.266
Stress optical coef. [1E-5 nm/cm/Pa]	2.14

Internal trans. (10mm)	
λ [nm]	τ
280	0.00
290	0.00
300	0.00
310	0.02
320	0.12
330	0.35
340	0.60
350	0.78
360	0.89
370	0.941
380	0.967
390	0.980
400	0.988
420	0.994
440	0.995
460	0.996
480	0.997
500	0.998
550	0.998
600	0.998
650	0.997
700	0.999
800	0.998
900	0.998
1000	0.998
1200	0.997
1400	0.986
1600	0.990
1800	0.978
2000	0.961
2200	0.88
2400	0.79

Specific gravity	
3.53	

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.)	2.7	2.7	2.7	2.9	3.0	3.1	3.2	3.2	3.3	3.5	3.8	3.9	4.3	4.7	4.9
60 to 80 (ref.)	2.5	2.5	2.7	2.8	2.9	3.0	3.0	3.0	3.2	3.3	3.7	3.7	4.1	4.5	4.7
40 to 60	2.4	2.4	2.5	2.6	2.7	2.8	2.8	2.9	3.0	3.1	3.5	3.5	3.9	4.3	4.4
20 to 40	2.3	2.3	2.4	2.5	2.6	2.7	2.7	2.7	2.8	3.0	3.3	3.3	3.7	4.1	4.2
0 to 20	2.2	2.2	2.3	2.4	2.5	2.6	2.6	2.6	2.7	2.9	3.2	3.2	3.6	3.9	4.1
-20 to 0	2.1	2.1	2.2	2.3	2.4	2.5	2.5	2.6	2.7	2.8	3.1	3.1	3.5	3.8	4.0
-40 to -20	2.2	2.2	2.3	2.4	2.4	2.5	2.6	2.6	2.7	2.8	3.1	3.1	3.5	3.8	3.9
-60 to -40 (ref.)	2.3	2.3	2.4	2.5	2.6	2.6	2.7	2.7	2.8	2.9	3.2	3.2	3.5	3.8	4.0
-70 to -60 (ref.)	2.4	2.5	2.5	2.6	2.7	2.8	2.8	2.8	2.9	3.0	3.3	3.3	3.7	3.9	4.1

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	1.7	1.7	1.8	1.9	2.0	2.1	2.2	2.2	2.3	2.5	2.8	2.8	3.3	3.6	3.8
60 to 80	1.4	1.5	1.6	1.7	1.8	1.9	1.9	1.9	2.1	2.2	2.5	2.6	3.0	3.4	3.5
40 to 60	1.2	1.2	1.3	1.4	1.5	1.6	1.6	1.6	1.8	1.9	2.2	2.2	2.6	3.0	3.2
20 to 40	0.9	0.9	1.0	1.1	1.2	1.3	1.3	1.3	1.4	1.6	1.9	1.9	2.3	2.6	2.8
0 to 20	0.6	0.6	0.7	0.8	0.9	1.0	1.0	1.0	1.1	1.3	1.5	1.6	1.9	2.3	2.4
-20 to 0	0.3	0.3	0.4	0.5	0.6	0.7	0.7	0.7	0.8	0.9	1.2	1.2	1.6	1.9	2.0
-40 to -20	0.0	0.0	0.1	0.2	0.3	0.4	0.4	0.4	0.5	0.6	0.9	0.9	1.2	1.5	1.6
-60 to -40	-0.3	-0.3	-0.2	-0.1	0.0	0.0	0.1	0.1	0.2	0.3	0.5	0.6	0.9	1.1	1.3
-70 to -60	-0.5	-0.5	-0.4	-0.3	-0.3	-0.2	-0.2	-0.1	-0.1	0.0	0.3	0.3	0.6	0.9	1.0

Coef. disp. form. (frac. eq.) (ref.)	
P1	1.20597544E-01
Q1	8.62245013E+01
P2	2.08228775E-02
Q2	2.54136407E-02
P3	3.21046137E-01
Q3	5.20024979E-03

Fitting error of disp. form. σ [1E-6]		
	Visible	Infrared
Power ser. eq.	0.5	3.7
Frac. eq. (ref.)	0.5	3.5

Prod. Freq. (A to D)	C
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Similar glass type			
OHARA	S-BSM4	HOYA	BACD4
CDGM	H-ZK6	SCHOTT	N-SK4

2019-4-1	Transmittance
2015-4-1	Color Code, Prod. Freq
2009-9-1	1st edition