

J-SK18

$n_d = 1.638540$

$n_e = 1.641289$

$v_d = 55.34$

$v_e = 55.07$

Glass code (d)
639553
Glass code (e)
641551

Spectral l.	Refractive idx
2.058	1.61110
1.970	1.61245
1.530	1.61859
1.129	1.62400
1.064	1.62498
t	1.62579
s	1.62894
A'	1.631094
r	1.633073
C	1.635050
C'	1.635605
He-Ne	1.636122
D	1.638438
d	1.638540
e	1.641289
F	1.646589
F'	1.647251
g	1.652938
h	1.658254
0.389	1.661518
i	1.667427

Coef. disp. form. (pwr ser.)	
A0	2.63738575E+00
A1	-1.03287558E-02
A2	-1.09091934E-04
A3	1.67282181E-02
A4	3.03233685E-04
A5	-2.03256494E-06
A6	7.96743025E-07
A7	0.00000000E+00
A8	0.00000000E+00

Partial dispersion	
F-C	0.011539
F'-C'	0.011646
C-t	0.009256
C-A'	0.003956
d-C	0.003490
e-C	0.006239
g-d	0.014398
g-F	0.006349
h-g	0.005316
i-g	0.014489
C'-t	0.009811
e-C'	0.005684
F'-e	0.005962
i-F'	0.020176

Relative partial dispersion	
C-t/F-C	0.8021
C-A'/F-C	0.3428
d-C/F-C	0.3025
e-C/F-C	0.5407
g-d/F-C	1.2478
g-F/F-C	0.5502
h-g/F-C	0.4607
i-g/F-C	1.2557
C'-t/F'-C'	0.8424
e-C'/F'-C'	0.4881
F'-e/F'-C'	0.5119
i-F'/F'-C'	1.7324

Deviation of relative partial disp.	
ΔPdC	0.0003
ΔPgF	-0.0013

Internal CC (80%/5%)	
364/330	

Color Code (80%/5%)	
375/330	

CCI	
B	0.00
G	0.48
R	0.45

Thermal properties	
CTE(-30,70) [1E-7/°C]	67
CTE(100,300) [1E-7/°C]	81
Tg [°C]	645
At [°C]	684
Ht condct. [W/m·K]	0.831
Sp. heat [kJ/kg·K]	0.526
Ht diffus. [1E-6 m2/sec]	0.429

Chemical properties [class]	
Acid res. (surface)	6
Alkaline detergent res.	3
Climate resistance	3
Water res. (powder)	3
Acid res. (powder)	5

Mechanical properties	
Knoop hardness	499 (5)
Abrasion hardness	157
Young's mod. [GPa]	87.0
Shear mod. [GPa]	34.2
Poisson's ratio	0.271
Stress optical coef. [1E-5 nm/cm/Pa]	1.92

Internal trans. (10mm)	
λ [nm]	τ
280	0.00
290	0.00
300	0.00
310	0.00
320	0.00
330	0.04
340	0.22
350	0.51
360	0.74
370	0.86
380	0.927
390	0.958
400	0.974
420	0.987
440	0.991
460	0.992
480	0.994
500	0.996
550	0.997
600	0.996
650	0.996
700	0.997
800	0.995
900	0.993
1000	0.994
1200	0.997
1400	0.989
1600	0.987
1800	0.969
2000	0.946
2200	0.85
2400	0.73

Specific gravity	
3.67	

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.)	1.7	1.7	1.8	1.9	2.0	2.2	2.2	2.2	2.4	2.6	2.9	3.0	3.5	3.9	4.2	
60 to 80 (ref.)	1.5	1.6	1.7	1.8	1.9	2.0	2.1	2.1	2.3	2.4	2.8	2.8	3.3	3.7	4.0	
40 to 60	1.4	1.4	1.6	1.7	1.8	1.9	1.9	2.0	2.1	2.3	2.6	2.7	3.1	3.5	3.7	
20 to 40	1.3	1.3	1.5	1.6	1.7	1.8	1.8	1.8	2.0	2.1	2.5	2.5	2.9	3.3	3.6	
0 to 20	1.3	1.3	1.4	1.5	1.6	1.7	1.7	1.8	1.9	2.0	2.4	2.4	2.8	3.2	3.4	
-20 to 0	1.3	1.3	1.4	1.5	1.6	1.7	1.7	1.7	1.9	2.0	2.3	2.4	2.7	3.1	3.3	
-40 to -20	1.3	1.3	1.4	1.5	1.6	1.7	1.7	1.8	1.9	2.0	2.3	2.4	2.7	3.1	3.3	
-60 to -40 (ref.)	1.5	1.5	1.6	1.7	1.8	1.9	1.9	1.9	2.0	2.1	2.4	2.5	2.8	3.1	3.3	
-70 to -60 (ref.)	1.7	1.7	1.8	1.9	1.9	2.0	2.1	2.1	2.2	2.3	2.6	2.6	3.0	3.3	3.5	

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	0.7	0.7	0.8	0.9	1.0	1.2	1.2	1.2	1.4	1.5	1.9	2.0	2.4	2.8	3.1	
60 to 80	0.5	0.5	0.6	0.7	0.8	0.9	1.0	1.0	1.1	1.3	1.7	1.7	2.2	2.6	2.8	
40 to 60	0.2	0.2	0.3	0.4	0.5	0.7	0.7	0.7	0.8	1.0	1.4	1.4	1.8	2.2	2.4	
20 to 40	-0.1	-0.1	0.1	0.2	0.3	0.4	0.4	0.4	0.6	0.7	1.0	1.1	1.5	1.9	2.1	
0 to 20	-0.3	-0.3	-0.2	-0.1	0.0	0.1	0.1	0.1	0.3	0.4	0.7	0.8	1.1	1.5	1.7	
-20 to 0	-0.6	-0.6	-0.5	-0.4	-0.3	-0.2	-0.2	-0.2	0.0	0.1	0.4	0.4	0.8	1.1	1.3	
-40 to -20	-0.9	-0.8	-0.8	-0.7	-0.6	-0.5	-0.5	-0.4	-0.3	-0.2	0.1	0.1	0.5	0.8	1.0	
-60 to -40	-1.1	-1.1	-1.0	-0.9	-0.8	-0.8	-0.8	-0.7	-0.6	-0.5	-0.2	-0.2	0.1	0.4	0.6	
-70 to -60	-1.3	-1.3	-1.2	-1.2	-1.1	-1.0	-1.0	-0.9	-0.8	-0.7	-0.5	-0.5	-0.1	0.1	0.3	

Coef. disp. form. (frac. eq.) (ref.)	
P1	1.05284203E-01
Q1	7.37088855E+01
P2	1.09317433E-02
Q2	3.78284051E-02
P3	3.42135739E-01
Q3	5.67258954E-03

Fitting error of disp. form. σ [1E-6]		
	Visible	Infrared
Power ser. eq.	0.5	3.7
Frac. eq. (ref.)	0.5	5.4

Prod. Freq. (A to D)	C
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Similar glass type			
OHARA	S-BSM18	HOYA	BACD18
CDGM	H-ZK11	SCHOTT	-

2019-4-1	Transmittance
2015-4-1	Color Code
2009-9-1	1st edition