

J-SSK1

$n_d = 1.617200$

$n_e = 1.619924$

$v_d = 53.97$

$v_e = 53.71$

Glass code (d)	617540
Glass code (e)	620537

Spectral l.	Refractive idx
2.058	1.58946
1.970	1.59085
1.530	1.59717
1.129	1.60268
1.064	1.60368
t	1.60450
s	1.60765
A'	1.609804
r	1.611774
C	1.613738
C'	1.614288
He-Ne	1.614802
D	1.617098
d	1.617200
e	1.619924
F	1.625175
F'	1.625831
g	1.631468
h	1.636742
0.389	1.639984
i	1.645856

Coef. disp. form. (pwr ser.)	
A0	2.56917001E+00
A1	-1.05347050E-02
A2	-1.14820760E-04
A3	1.63890732E-02
A4	2.66043325E-04
A5	2.86703318E-06
A6	5.89038637E-07
A7	0.00000000E+00
A8	0.00000000E+00

Partial dispersion	
F-C	0.011437
F'-C'	0.011543
C-t	0.009240
C-A'	0.003934
d-C	0.003462
e-C	0.006186
g-d	0.014268
g-F	0.006293
h-g	0.005274
i-g	0.014388
C'-t	0.009790
e-C'	0.005636
F'-e	0.005907
i-F'	0.020025

Relative partial dispersion	
C-t/F-C	0.8079
C-A'/F-C	0.3440
d-C/F-C	0.3027
e-C/F-C	0.5409
g-d/F-C	1.2475
g-F/F-C	0.5502
h-g/F-C	0.4611
i-g/F-C	1.2580
C'-t/F'-C'	0.8481
e-C'/F'-C'	0.4883
F'-e/F'-C'	0.5117
i-F'/F'-C'	1.7348

Deviation of relative partial disp.	
ΔPdC	0.0011
ΔPgF	-0.0036

Internal CC (80%/5%)	
359/329	

Color Code (80%/5%)	
370/330	

CCI	
B	0.00
G	0.33
R	0.32

Thermal properties	
CTE(-30,70) [1E-7/°C]	59
CTE(100,300) [1E-7/°C]	74
Tg [°C]	600
At [°C]	649
Ht condct. [W/m·K]	0.865
Sp. heat [kJ/kg·K]	0.592
Ht diffus. [1E-6 m2/sec]	0.442

Chemical properties [class]	
Acid res. (surface)	6
Alkaline detergent res.	3
Climate resistance	1
Water res. (powder)	2
Acid res. (powder)	4

Mechanical properties	
Knoop hardness	539 (5)
Abrasion hardness	136
Young's mod. [GPa]	86.2
Shear mod. [GPa]	34.1
Poisson's ratio	0.265
Stress optical coef. [1E-5 nm/cm/Pa]	2.75

Internal trans. (10mm)	
λ [nm]	τ
280	0.00
290	0.00
300	0.00
310	0.00
320	0.00
330	0.07
340	0.29
350	0.60
360	0.81
370	0.913
380	0.956
390	0.976
400	0.984
420	0.990
440	0.992
460	0.993
480	0.995
500	0.997
550	0.997
600	0.997
650	0.997
700	0.998
800	0.998
900	0.997
1000	0.997
1200	0.998
1400	0.987
1600	0.989
1800	0.978
2000	0.960
2200	0.87
2400	0.75

Specific gravity	
3.3	

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.)	3.9	3.9	4.0	4.2	4.3	4.4	4.5	4.5	4.6	4.8	5.3	5.3	5.8	6.3	6.6
60 to 80 (ref.)	3.8	3.8	4.0	4.1	4.2	4.3	4.3	4.3	4.5	4.7	5.1	5.1	5.6	6.1	6.3
40 to 60	3.6	3.6	3.8	3.9	4.0	4.1	4.1	4.1	4.3	4.5	4.9	4.9	5.4	5.8	6.1
20 to 40	3.4	3.5	3.6	3.7	3.8	3.9	4.0	4.0	4.1	4.3	4.7	4.7	5.2	5.6	5.9
0 to 20	3.3	3.4	3.5	3.6	3.7	3.8	3.8	3.9	4.0	4.2	4.5	4.6	5.0	5.4	5.7
-20 to 0	3.3	3.3	3.4	3.5	3.6	3.7	3.8	3.8	3.9	4.1	4.4	4.5	4.9	5.3	5.5
-40 to -20	3.3	3.3	3.5	3.5	3.6	3.7	3.7	3.8	3.9	4.1	4.4	4.4	4.9	5.3	5.5
-60 to -40 (ref.)	3.4	3.4	3.5	3.6	3.7	3.8	3.8	3.9	4.0	4.1	4.5	4.5	4.9	5.3	5.5
-70 to -60 (ref.)	3.5	3.6	3.7	3.8	3.9	3.9	4.0	4.0	4.1	4.3	4.6	4.6	5.0	5.4	5.6

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	2.9	3.0	3.1	3.2	3.3	3.4	3.5	3.5	3.6	3.8	4.2	4.3	4.8	5.2	5.5
60 to 80	2.7	2.7	2.9	3.0	3.1	3.2	3.2	3.2	3.4	3.6	4.0	4.0	4.5	4.9	5.2
40 to 60	2.4	2.4	2.5	2.6	2.7	2.8	2.9	2.9	3.0	3.2	3.6	3.7	4.1	4.6	4.8
20 to 40	2.1	2.1	2.2	2.3	2.4	2.5	2.5	2.6	2.7	2.9	3.3	3.3	3.7	4.2	4.4
0 to 20	1.8	1.8	1.9	2.0	2.1	2.2	2.2	2.2	2.4	2.5	2.9	2.9	3.4	3.8	4.0
-20 to 0	1.4	1.5	1.6	1.7	1.8	1.9	1.9	1.9	2.0	2.2	2.5	2.6	3.0	3.4	3.6
-40 to -20	1.1	1.2	1.3	1.4	1.4	1.5	1.6	1.6	1.7	1.9	2.2	2.2	2.6	3.0	3.2
-60 to -40	0.8	0.9	1.0	1.1	1.1	1.2	1.2	1.3	1.4	1.5	1.8	1.9	2.2	2.6	2.8
-70 to -60	0.6	0.6	0.7	0.8	0.9	1.0	1.0	1.0	1.1	1.3	1.6	1.6	2.0	2.3	2.5

Coef. disp. form. (frac. eq.) (ref.)	
P1	1.21623796E-01
Q1	8.02644402E+01
P2	1.09215263E-02
Q2	3.87083928E-02
P3	3.32513362E-01
Q3	5.82267405E-03

Fitting error of disp. form. σ [1E-6]		
	Visible	Infrared
Power ser. eq.	0.5	4.9
Frac. eq. (ref.)	0.4	5.3

Prod. Freq. (A to D)	C
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Similar glass type			
OHARA	-	HOYA	E-BACED20
CDGM	H-ZK20	SCHOTT	-

2019-4-1	Transmittance
2018-4-1	Prod. Freq., Similar glass type
2016-4-1	Similar glass type