

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
StP [°C]	552
AP [°C]	589
SP [°C]	725
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	-	
290	-	
300	-	
310	-	
320	-	
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	-
CDGM	H-ZK20	SCHOTT	-

2022-7-1	StP, AP, SP
2020-4-1	Similar glass type
2019-4-1	Transmittance