

# J-SSK5

$n_d = 1.658440$

$n_e = 1.661522$

$v_d = 50.84$

$v_e = 50.54$

Glass code (d)
658508
Glass code (e)
662505

Spectral l.	Refractive idx
2.058	1.63030
1.970	1.63156
1.530	1.63735
1.129	1.64268
1.064	1.64369
t	1.64453
s	1.64786
A'	1.650196
r	1.652367
C	1.654552
C'	1.655167
He-Ne	1.655742
D	1.658325
d	1.658440
e	1.661522
F	1.667504
F'	1.668256
g	1.674728
h	1.680821
0.389	1.684584
i	1.691437

Coef. disp. form. (pwr ser.)	
A0	2.69546608E+00
A1	-9.46960473E-03
A2	-1.10686762E-04
A3	1.90535266E-02
A4	3.49767067E-04
A5	1.61235917E-06
A6	1.06076791E-06
A7	0.00000000E+00
A8	0.00000000E+00

Partial dispersion	
F-C	0.012952
F'-C'	0.013089
C-t	0.010022
C-A'	0.004356
d-C	0.003888
e-C	0.006970
g-d	0.016288
g-F	0.007224
h-g	0.006093
i-g	0.016709
C'-t	0.010637
e-C'	0.006355
F'-e	0.006734
i-F'	0.023181

Relative partial dispersion	
C-t/F-C	0.7738
C-A'/F-C	0.3363
d-C/F-C	0.3002
e-C/F-C	0.5381
g-d/F-C	1.2576
g-F/F-C	0.5578
h-g/F-C	0.4704
i-g/F-C	1.2901
C'-t/F'-C'	0.8127
e-C'/F'-C'	0.4855
F'-e/F'-C'	0.5145
i-F'/F'-C'	1.7710

Deviation of relative partial disp.	
$\Delta PdC$	0.0000
$\Delta PgF$	-0.0013

Internal CC (80%/5%)	
370/337	

Color Code (80%/5%)	
385/335	

CCI	
B	0.00
G	0.71
R	0.71

Thermal properties	
CTE(-30,70) [1E-7/°C]	70
CTE(100,300) [1E-7/°C]	84
Tg [°C]	641
At [°C]	681
Ht condct. [W/m·K]	0.759
Sp. heat [kJ/kg·K]	0.531
Ht diffus. [1E-6 m2/sec]	0.382

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

Mechanical properties	
Knoop hardness	483 (5)
Abrasion hardness	163
Young's mod. [GPa]	83.4
Shear mod. [GPa]	32.6
Poisson's ratio	0.280
Stress optical coef. [1E-5 nm/cm/Pa]	2.03

Internal trans. (10mm)	
$\lambda$ [nm]	$\tau$
280	0.00
290	0.00
300	0.00
310	0.00
320	0.00
330	0.01
340	0.10
350	0.34
360	0.62
370	0.80
380	0.89
390	0.939
400	0.963
420	0.983
440	0.988
460	0.991
480	0.993
500	0.995
550	0.998
600	0.998
650	0.998
700	0.997
800	0.997
900	0.997
1000	0.997
1200	0.997
1400	0.992
1600	0.989
1800	0.976
2000	0.959
2200	0.900
2400	0.80

Specific gravity	
3.75	

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.)	1.9	2.0	2.1	2.2	2.4	2.5	2.5	2.6	2.8	3.0	3.4	3.5	4.0	4.6	5.0
60 to 80 (ref.)	1.8	1.9	2.0	2.1	2.2	2.4	2.4	2.4	2.6	2.8	3.3	3.4	3.9	4.4	4.8
40 to 60	1.7	1.7	1.9	2.0	2.1	2.2	2.3	2.3	2.5	2.7	3.1	3.2	3.7	4.2	4.5
20 to 40	1.6	1.6	1.8	1.9	2.0	2.1	2.1	2.2	2.3	2.5	3.0	3.0	3.5	4.0	4.3
0 to 20	1.5	1.6	1.7	1.8	1.9	2.0	2.1	2.1	2.2	2.4	2.9	2.9	3.4	3.9	4.2
-20 to 0	1.5	1.5	1.7	1.8	1.9	2.0	2.0	2.1	2.2	2.4	2.8	2.8	3.3	3.8	4.1
-40 to -20	1.5	1.6	1.7	1.8	1.9	2.0	2.1	2.1	2.2	2.4	2.8	2.8	3.3	3.7	4.0
-60 to -40 (ref.)	1.7	1.7	1.9	2.0	2.0	2.2	2.2	2.2	2.4	2.5	2.9	3.0	3.4	3.8	4.1
-70 to -60 (ref.)	1.9	1.9	2.0	2.1	2.2	2.3	2.4	2.4	2.5	2.7	3.1	3.1	3.5	3.9	4.2

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	0.9	0.9	1.1	1.2	1.3	1.5	1.5	1.5	1.7	1.9	2.4	2.5	3.0	3.5	3.9
60 to 80	0.7	0.7	0.9	1.0	1.1	1.3	1.3	1.3	1.5	1.7	2.2	2.2	2.7	3.2	3.6
40 to 60	0.4	0.5	0.6	0.7	0.8	1.0	1.0	1.0	1.2	1.4	1.8	1.9	2.4	2.9	3.2
20 to 40	0.1	0.2	0.3	0.4	0.5	0.7	0.7	0.7	0.9	1.1	1.5	1.5	2.0	2.5	2.8
0 to 20	-0.1	-0.1	0.1	0.2	0.3	0.4	0.4	0.4	0.6	0.8	1.2	1.2	1.7	2.1	2.5
-20 to 0	-0.4	-0.3	-0.2	-0.1	0.0	0.1	0.1	0.1	0.3	0.5	0.8	0.9	1.3	1.8	2.1
-40 to -20	-0.7	-0.6	-0.5	-0.4	-0.3	-0.2	-0.2	-0.2	0.0	0.2	0.5	0.6	1.0	1.4	1.7
-60 to -40	-0.9	-0.9	-0.8	-0.7	-0.6	-0.5	-0.5	-0.5	-0.3	-0.2	0.2	0.2	0.6	1.0	1.3
-70 to -60	-1.1	-1.1	-1.0	-0.9	-0.8	-0.7	-0.7	-0.7	-0.6	-0.4	-0.1	0.0	0.4	0.8	1.0

Coef. disp. form. (frac. eq.) (ref.)	
P1	9.83663348E-02
Q1	7.63945327E+01
P2	1.03186784E-02
Q2	4.32605569E-02
P3	3.50770304E-01
Q3	6.14483385E-03

Fitting error of disp. form. $\sigma$ [1E-6]		
	Visible	Infrared
Power ser. eq.	0.7	8.3
Frac. eq. (ref.)	0.6	9.0

Prod. Freq. (A to D)	C
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Similar glass type			
OHARA	S-BSM25	HOYA	BACED5
CDGM	H-ZBaF50	SCHOTT	N-SSK5

2019-4-1	Transmittance
2015-4-1	Color Code, Prod. Freq
2011-2-1	Similar glass type