

J-SK11

$n_d = 1.563840$

$n_e = 1.566055$

$v_d = 60.71$

$v_e = 60.46$

Glass code (d)	564607
Glass code (e)	566605

Spectral l.	Refractive idx
2.058	1.53995
1.970	1.54120
1.530	1.54686
1.129	1.55171
1.064	1.55257
t	1.55328
s	1.55595
A'	1.557752
r	1.559387
C	1.561006
C'	1.561458
He-Ne	1.561879
D	1.563757
d	1.563840
e	1.566055
F	1.570294
F'	1.570821
g	1.575320
h	1.579485
0.389	1.582022
i	1.586569

Coef. disp. form. (pwr ser.)	
A0	2.40941529E+00
A1	-9.29122990E-03
A2	-9.65092890E-05
A3	1.31170272E-02
A4	1.53988355E-04
A5	4.69136387E-06
A6	-2.59660236E-08
A7	0.00000000E+00
A8	0.00000000E+00

Partial dispersion	
F-C	0.009288
F'-C'	0.009363
C-t	0.007729
C-A'	0.003254
d-C	0.002834
e-C	0.005049
g-d	0.011480
g-F	0.005026
h-g	0.004165
i-g	0.011249
C'-t	0.008181
e-C'	0.004597
F'-e	0.004766
i-F'	0.015748

Relative partial dispersion	
C-t/F-C	0.8321
C-A'/F-C	0.3503
d-C/F-C	0.3051
e-C/F-C	0.5436
g-d/F-C	1.2360
g-F/F-C	0.5411
h-g/F-C	0.4484
i-g/F-C	1.2111
C'-t/F'-C'	0.8738
e-C'/F'-C'	0.4910
F'-e/F'-C'	0.5090
i-F'/F'-C'	1.6819

Deviation of relative partial disp.	
ΔPdC	0.0005
ΔPgF	-0.0014

Internal CC (80%/5%)	
334/302	

Color Code (80%/5%)	
340/305	

CCI	
B	0.00
G	0.12
R	0.06

Thermal properties	
CTE(-30,70) [1E-7/°C]	64
CTE(100,300) [1E-7/°C]	77
Tg [°C]	603
At [°C]	653
Ht condct. [W/m·K]	0.873
Sp. heat [kJ/kg·K]	0.550
Ht diffus. [1E-6 m2/sec]	0.444

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

Mechanical properties	
Knoop hardness	508 (5)
Abrasion hardness	112
Young's mod. [GPa]	79.9
Shear mod. [GPa]	32.2
Poisson's ratio	0.241
Stress optical coef. [1E-5 nm/cm/Pa]	2.61

Internal trans. (10mm)	
λ [nm]	τ
280	0.00
290	0.00
300	0.03
310	0.20
320	0.50
330	0.74
340	0.87
350	0.938
360	0.969
370	0.982
380	0.988
390	0.993
400	0.995
420	0.996
440	0.996
460	0.996
480	0.997
500	0.998
550	0.998
600	0.998
650	0.997
700	0.998
800	0.998
900	0.999
1000	0.999
1200	0.999
1400	0.982
1600	0.992
1800	0.980
2000	0.962
2200	0.87
2400	0.82

Specific gravity	
3.06	

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.)	3.6	3.7	3.7	3.9	3.9	4.0	4.1	4.1	4.2	4.3	4.6	4.6	4.9	5.2	5.4	
60 to 80 (ref.)	3.4	3.4	3.6	3.6	3.7	3.8	3.8	3.9	4.0	4.1	4.4	4.4	4.7	5.0	5.2	
40 to 60	3.1	3.2	3.3	3.4	3.5	3.5	3.6	3.6	3.7	3.8	4.1	4.1	4.4	4.7	4.9	
20 to 40	2.9	2.9	3.0	3.1	3.2	3.3	3.3	3.3	3.4	3.6	3.8	3.9	4.1	4.4	4.6	
0 to 20	2.7	2.7	2.8	2.9	3.0	3.1	3.1	3.1	3.2	3.4	3.6	3.6	3.9	4.2	4.4	
-20 to 0	2.5	2.6	2.7	2.8	2.8	2.9	3.0	3.0	3.1	3.2	3.4	3.5	3.8	4.0	4.2	
-40 to -20	2.4	2.5	2.6	2.7	2.7	2.8	2.9	2.9	3.0	3.1	3.3	3.4	3.7	3.9	4.1	
-60 to -40 (ref.)	2.4	2.5	2.6	2.7	2.7	2.8	2.8	2.9	3.0	3.1	3.3	3.4	3.6	3.9	4.1	
-70 to -60 (ref.)	2.5	2.5	2.6	2.7	2.8	2.9	2.9	2.9	3.0	3.2	3.4	3.4	3.7	4.0	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	2.7	2.7	2.8	2.9	3.0	3.1	3.1	3.1	3.2	3.3	3.6	3.6	3.9	4.2	4.4	
60 to 80	2.4	2.4	2.5	2.6	2.7	2.8	2.8	2.8	2.9	3.0	3.3	3.3	3.6	3.9	4.1	
40 to 60	2.0	2.0	2.1	2.2	2.3	2.3	2.4	2.4	2.5	2.6	2.9	2.9	3.2	3.5	3.6	
20 to 40	1.6	1.6	1.7	1.8	1.9	1.9	2.0	2.0	2.1	2.2	2.4	2.5	2.7	3.0	3.2	
0 to 20	1.2	1.2	1.3	1.4	1.5	1.5	1.6	1.6	1.7	1.8	2.0	2.1	2.3	2.6	2.8	
-20 to 0	0.8	0.8	0.9	1.0	1.0	1.1	1.1	1.2	1.3	1.4	1.6	1.6	1.9	2.2	2.4	
-40 to -20	0.4	0.4	0.5	0.6	0.6	0.7	0.7	0.8	0.9	1.0	1.2	1.2	1.5	1.7	1.9	
-60 to -40	0.0	0.0	0.1	0.2	0.2	0.3	0.3	0.3	0.4	0.6	0.8	0.8	1.1	1.3	1.5	
-70 to -60	-0.3	-0.3	-0.2	-0.1	-0.1	0.0	0.0	0.0	0.1	0.2	0.5	0.5	0.7	1.0	1.2	

Coef. disp. form. (frac. eq.) (ref.)	
P1	1.30541326E-01
Q1	9.05077329E+01
P2	4.41635252E-02
Q2	1.83187813E-02
P3	2.75495920E-01
Q3	4.38027483E-03

Fitting error of disp. form. σ [1E-6]		
	Visible	Infrared
Power ser. eq.	0.3	3.4
Frac. eq. (ref.)	0.3	3.6

Prod. Freq. (A to D)	B
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Similar glass type			
OHARA	S-BAL41	HOYA	BACD11
CDGM	H-BaK6	SCHOTT	N-SK11

2019-4-1	Transmittance
2015-4-1	Color Code, Prod. Freq
2011-2-1	Stress optical coefficient