

J-SK5

$n_d = 1.589130$

$n_e = 1.591426$

$v_d = 61.22$

$v_e = 60.98$

Glass code (d)
589612
Glass code (e)
591610

Spectral l.	Refractive idx
2.058	1.56405
1.970	1.56537
1.530	1.57138
1.129	1.57650
1.064	1.57740
t	1.57814
s	1.58094
A'	1.582810
r	1.584509
C	1.586191
C'	1.586660
He-Ne	1.587097
D	1.589044
d	1.589130
e	1.591426
F	1.595814
F'	1.596359
g	1.601011
h	1.605313
0.389	1.607932
i	1.612622

Coef. disp. form. (pwr ser.)	
A0	2.48748280E+00
A1	-1.01006793E-02
A2	-9.51075480E-05
A3	1.37290228E-02
A4	1.82268499E-04
A5	1.87989450E-06
A6	9.76616911E-08
A7	0.00000000E+00
A8	0.00000000E+00

Partial dispersion	
F-C	0.009623
F'-C'	0.009699
C-t	0.008051
C-A'	0.003381
d-C	0.002939
e-C	0.005235
g-d	0.011881
g-F	0.005197
h-g	0.004302
i-g	0.011611
C'-t	0.008520
e-C'	0.004766
F'-e	0.004933
i-F'	0.016263

Relative partial dispersion	
C-t/F-C	0.8366
C-A'/F-C	0.3513
d-C/F-C	0.3054
e-C/F-C	0.5440
g-d/F-C	1.2346
g-F/F-C	0.5401
h-g/F-C	0.4471
i-g/F-C	1.2066
C'-t/F'-C'	0.8784
e-C'/F'-C'	0.4914
F'-e/F'-C'	0.5086
i-F'/F'-C'	1.6768

Deviation of relative partial disp.	
ΔPdC	0.0006
ΔPgF	-0.0016

Internal CC (80%/5%)	
339/298	

Color Code (80%/5%)	
350/300	

CCI	
B	0.00
G	0.12
R	0.13

Thermal properties	
CTE(-30,70) [1E-7/°C]	55
CTE(100,300) [1E-7/°C]	67
Tg [°C]	613
At [°C]	658
Ht condct. [W/m·K]	1.092
Sp. heat [kJ/kg·K]	0.614
Ht diffus. [1E-6 m2/sec]	0.542

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

Mechanical properties	
Knoop hardness	523 (5)
Abrasion hardness	85
Young's mod. [GPa]	86.1
Shear mod. [GPa]	34.4
Poisson's ratio	0.252
Stress optical coef. [1E-5 nm/cm/Pa]	2.29

Internal trans. (10mm)	
λ [nm]	τ
280	0.00
290	0.02
300	0.07
310	0.24
320	0.48
330	0.69
340	0.82
350	0.905
360	0.950
370	0.973
380	0.984
390	0.991
400	0.994
420	0.996
440	0.997
460	0.997
480	0.998
500	0.999
550	0.999
600	0.999
650	0.999
700	0.999
800	0.998
900	0.997
1000	0.997
1200	0.997
1400	0.979
1600	0.989
1800	0.979
2000	0.962
2200	0.87
2400	0.79

Specific gravity	
3.26	

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.)	3.8	3.8	3.9	4.0	4.1	4.2	4.2	4.2	4.3	4.5	4.8	4.8	5.1	5.4	5.6	
60 to 80 (ref.)	3.6	3.7	3.8	3.9	3.9	4.0	4.1	4.1	4.2	4.3	4.6	4.6	5.0	5.2	5.5	
40 to 60	3.5	3.5	3.6	3.7	3.8	3.8	3.9	3.9	4.0	4.2	4.4	4.4	4.8	5.0	5.2	
20 to 40	3.3	3.4	3.5	3.6	3.6	3.7	3.7	3.7	3.9	4.0	4.3	4.3	4.6	4.8	5.0	
0 to 20	3.2	3.3	3.4	3.4	3.5	3.6	3.6	3.6	3.7	3.9	4.1	4.1	4.4	4.7	4.9	
-20 to 0	3.2	3.2	3.3	3.4	3.4	3.5	3.5	3.6	3.7	3.8	4.1	4.1	4.4	4.6	4.8	
-40 to -20	3.2	3.2	3.3	3.4	3.5	3.5	3.5	3.6	3.7	3.8	4.0	4.1	4.3	4.6	4.8	
-60 to -40 (ref.)	3.3	3.3	3.4	3.5	3.6	3.6	3.6	3.7	3.8	3.9	4.1	4.1	4.4	4.6	4.8	
-70 to -60 (ref.)	3.4	3.5	3.6	3.6	3.7	3.8	3.8	3.8	3.9	4.0	4.3	4.3	4.5	4.8	4.9	

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	2.8	2.8	3.0	3.0	3.1	3.2	3.2	3.2	3.2	3.4	3.5	3.8	3.8	4.1	4.4	
60 to 80	2.6	2.6	2.7	2.8	2.9	2.9	3.0	3.0	3.1	3.3	3.5	3.5	3.9	4.1	4.3	
40 to 60	2.3	2.3	2.4	2.5	2.6	2.6	2.7	2.7	2.8	2.9	3.2	3.2	3.5	3.8	4.0	
20 to 40	2.0	2.0	2.1	2.2	2.2	2.3	2.3	2.4	2.5	2.6	2.9	2.9	3.2	3.4	3.6	
0 to 20	1.7	1.7	1.8	1.9	1.9	2.0	2.0	2.0	2.2	2.3	2.5	2.5	2.8	3.1	3.2	
-20 to 0	1.4	1.4	1.5	1.6	1.6	1.7	1.7	1.7	1.8	2.0	2.2	2.2	2.5	2.7	2.9	
-40 to -20	1.1	1.1	1.2	1.3	1.3	1.4	1.4	1.4	1.5	1.6	1.9	1.9	2.1	2.4	2.5	
-60 to -40	0.8	0.8	0.9	0.9	1.0	1.1	1.1	1.1	1.2	1.3	1.5	1.5	1.8	2.0	2.2	
-70 to -60	0.5	0.6	0.7	0.7	0.8	0.8	0.8	0.9	0.9	1.1	1.3	1.3	1.5	1.7	1.9	

Coef. disp. form. (frac. eq.) (ref.)	
P1	1.32946901E-01
Q1	8.83791979E+01
P2	7.83138637E-02
Q2	1.47105353E-02
P3	2.53166689E-01
Q3	3.53720032E-03

Fitting error of disp. form. σ [1E-6]		
	Visible	Infrared
Power ser. eq.	0.3	3.7
Frac. eq. (ref.)	0.3	4.1

Prod. Freq. (A to D)	A
----------------------	---

Similar glass type			
OHARA	S-BAL35	HOYA	BACD5
CDGM	H-ZK3	SCHOTT	N-SK5

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