

J-SK14

$n_d = 1.603110$

$n_e = 1.605480$

$v_d = 60.69$

$v_e = 60.45$

Glass code (d)	603607
Glass code (e)	605605

Spectral l.	Refractive idx
2.058	1.57754
1.970	1.57887
1.530	1.58494
1.129	1.59014
1.064	1.59106
t	1.59181
s	1.59467
A'	1.596598
r	1.598346
C	1.600078
C'	1.600562
He-Ne	1.601012
D	1.603021
d	1.603110
e	1.605480
F	1.610015
F'	1.610579
g	1.615392
h	1.619847
0.389	1.622559
i	1.627420

Coef. disp. form. (pwr ser.)	
A0	2.53043945E+00
A1	-1.02567827E-02
A2	-9.79440830E-05
A3	1.42752530E-02
A4	2.00898558E-04
A5	1.18522803E-06
A6	1.46555128E-07
A7	0.00000000E+00
A8	0.00000000E+00

Partial dispersion	
F-C	0.009937
F'-C'	0.010017
C-t	0.008266
C-A'	0.003480
d-C	0.003032
e-C	0.005402
g-d	0.012282
g-F	0.005377
h-g	0.004455
i-g	0.012028
C'-t	0.008750
e-C'	0.004918
F'-e	0.005099
i-F'	0.016841

Relative partial dispersion	
C-t/F-C	0.8318
C-A'/F-C	0.3502
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	0.4483
i-g/F-C	1.2104
C'-t/F'-C'	0.8735
e-C'/F'-C'	0.4910
F'-e/F'-C'	0.5090
i-F'/F'-C'	1.6812

Deviation of relative partial disp.	
ΔPdC	0.0005
ΔPgF	-0.0014

Internal CC (80%/5%)	
342/290	

Color Code (80%/5%)	
355/290	

CCI	
B	0.00
G	0.15
R	0.13

Thermal properties	
CTE(-30,70) [1E-7/°C]	58
CTE(100,300) [1E-7/°C]	72
Tg [°C]	646
At [°C]	691
Ht condct. [W/m·K]	0.979
Sp. heat [kJ/kg·K]	0.567
Ht diffus. [1E-6 m2/sec]	0.501

Chemical properties [class]	
Acid res. (surface)	4
Alkaline detergent res.	2
Climate resistance	3
Water res. (powder)	3
Acid res. (powder)	5

Mechanical properties	
Knoop hardness	503 (5)
Abrasion hardness	142
Young's mod. [GPa]	85.7
Shear mod. [GPa]	34.0
Poisson's ratio	0.260
Stress optical coef. [1E-5 nm/cm/Pa]	2.19

Internal trans. (10mm)	
λ [nm]	τ
280	0.00
290	0.05
300	0.13
310	0.28
320	0.47
330	0.65
340	0.78
350	0.88
360	0.932
370	0.963
380	0.978
390	0.987
400	0.992
420	0.995
440	0.996
460	0.997
480	0.998
500	0.999
550	0.999
600	0.998
650	0.998
700	0.998
800	0.997
900	0.996
1000	0.997
1200	0.998
1400	0.979
1600	0.988
1800	0.974
2000	0.952
2200	0.84
2400	0.74

Specific gravity	
3.43	

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.)	2.7	2.7	2.8	2.9	3.0	3.1	3.1	2.2	3.3	3.4	3.7	3.8	4.1	4.5	4.6	
60 to 80 (ref.)	2.6	2.6	2.7	2.8	2.9	3.0	3.0	3.0	3.1	3.3	3.6	3.6	4.0	4.3	4.4	
40 to 60	2.4	2.4	2.5	2.6	2.7	2.8	2.8	2.8	2.9	3.1	3.4	3.4	3.8	4.1	4.2	
20 to 40	2.2	2.3	2.4	2.5	2.5	2.6	2.6	2.7	2.8	2.9	3.2	3.2	3.6	3.9	4.0	
0 to 20	2.1	2.1	2.2	2.3	2.4	2.5	2.5	2.5	2.6	2.8	3.1	3.1	3.4	3.7	3.9	
-20 to 0	2.1	2.1	2.2	2.3	2.3	2.4	2.4	2.5	2.6	2.7	3.0	3.0	3.3	3.6	3.8	
-40 to -20	2.1	2.1	2.2	2.3	2.3	2.4	2.4	2.5	2.6	2.7	3.0	3.0	3.3	3.6	3.8	
-60 to -40 (ref.)	2.2	2.2	2.3	2.3	2.4	2.5	2.5	2.5	2.6	2.8	3.0	3.1	3.4	3.7	3.8	
-70 to -60 (ref.)	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	3.9	

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	1.7	1.7	1.9	1.9	2.0	2.1	2.1	2.2	2.3	2.4	2.7	2.7	3.1	3.4	3.6	
60 to 80	1.5	1.5	1.6	1.7	1.8	1.9	1.9	1.9	2.0	2.2	2.4	2.5	2.8	3.2	3.3	
40 to 60	1.2	1.2	1.3	1.4	1.5	1.6	1.6	1.6	1.7	1.8	2.1	2.1	2.5	2.8	2.9	
20 to 40	0.9	0.9	1.0	1.1	1.1	1.2	1.2	1.3	1.4	1.5	1.8	1.8	2.1	2.4	2.6	
0 to 20	0.6	0.6	0.7	0.7	0.8	0.9	0.9	0.9	1.0	1.2	1.4	1.5	1.8	2.1	2.2	
-20 to 0	0.2	0.3	0.3	0.4	0.5	0.6	0.6	0.6	0.7	0.8	1.1	1.1	1.5	1.7	1.9	
-40 to -20	-0.1	-0.1	0.0	0.1	0.2	0.3	0.3	0.3	0.4	0.5	0.7	0.8	1.1	1.4	1.5	
-60 to -40	-0.4	-0.4	-0.3	-0.2	-0.1	-0.1	-0.1	0.0	0.1	0.2	0.4	0.4	0.8	1.0	1.1	
-70 to -60	-0.6	-0.6	-0.5	-0.5	-0.4	-0.3	-0.3	-0.3	-0.2	-0.1	0.2	0.2	0.5	0.8	0.9	

Coef. disp. form. (frac. eq.) (ref.)	
P1	1.29162449E-01
Q1	8.62734299E+01
P2	9.62415853E-02
Q2	1.39736344E-02
P3	2.41574459E-01
Q3	3.09089297E-03

Fitting error of disp. form. σ [1E-6]		
	Visible	Infrared
Power ser. eq.	0.6	5.3
Frac. eq. (ref.)	0.6	5.6

Prod. Freq. (A to D)	B
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Similar glass type			
OHARA	S-BSM14	HOYA	BACD14
CDGM	H-ZK14	SCHOTT	N-SK14

2019-4-1	Transmittance
2016-4-1	Prod. Freq
2015-4-1	Color Code, Prod. Freq