

J-SK12

$n_d = 1.583130$

$n_e = 1.585470$

$v_d = 59.42$

$v_e = 59.16$

Glass code (d)
583594
Glass code (e)
585592

Spectral l.	Refractive idx
2.058	1.55838
1.970	1.55965
1.530	1.56543
1.129	1.57042
1.064	1.57131
t	1.57204
s	1.57483
A'	1.576718
r	1.578436
C	1.580141
C'	1.580617
He-Ne	1.581061
D	1.583043
d	1.583130
e	1.585470
F	1.589954
F'	1.590513
g	1.595281
h	1.599700
0.389	1.602395
i	1.607229

Coef. disp. form. (pwr ser.)	
A0	2.46741191E+00
A1	-9.52788845E-03
A2	-1.02594923E-04
A3	1.40303006E-02
A4	1.69265777E-04
A5	5.39399652E-06
A6	-2.33385875E-08
A7	0.00000000E+00
A8	0.00000000E+00

Partial dispersion	
F-C	0.009813
F'-C'	0.009896
C-t	0.008098
C-A'	0.003423
d-C	0.002989
e-C	0.005329
g-d	0.012151
g-F	0.005327
h-g	0.004419
i-g	0.011948
C'-t	0.008574
e-C'	0.004853
F'-e	0.005043
i-F'	0.016716

Relative partial dispersion	
C-t/F-C	0.8252
C-A'/F-C	0.3488
d-C/F-C	0.3046
e-C/F-C	0.5431
g-d/F-C	1.2383
g-F/F-C	0.5429
h-g/F-C	0.4503
i-g/F-C	1.2176
C'-t/F'-C'	0.8664
e-C'/F'-C'	0.4904
F'-e/F'-C'	0.5096
i-F'/F'-C'	1.6892

Deviation of relative partial disp.	
ΔPdC	0.0006
ΔPgF	-0.0018

Internal CC (80%/5%)	
335/288	

Color Code (80%/5%)	
345/290	

CCI	
B	0.00
G	0.15
R	0.13

Thermal properties	
CTE(-30,70) [1E-7/°C]	60
CTE(100,300) [1E-7/°C]	73
Tg [°C]	604
At [°C]	650
Ht condct. [W/m·K]	0.869
Sp. heat [kJ/kg·K]	0.558
Ht diffus. [1E-6 m2/sec]	0.479

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

Mechanical properties	
Knoop hardness	483 (5)
Abrasion hardness	112
Young's mod. [GPa]	81.6
Shear mod. [GPa]	32.6
Poisson's ratio	0.252
Stress optical coef. [1E-5 nm/cm/Pa]	2.61

Internal trans. (10mm)		
λ [nm]	τ	
280	0.00	
290	0.06	
300	0.18	
310	0.37	
320	0.58	
330	0.74	
340	0.85	
350	0.919	
360	0.956	
370	0.975	
380	0.984	
390	0.990	
400	0.993	
420	0.995	
440	0.995	
460	0.996	
480	0.996	
500	0.997	
550	0.998	
600	0.998	
650	0.998	
700	0.997	
800	0.997	
900	0.997	
1000	0.998	
1200	0.999	
1400	0.985	
1600	0.990	
1800	0.976	
2000	0.962	
2200	0.88	
2400	0.80	

Specific gravity	
3.23	

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.)	3.5	3.6	3.7	3.8	3.9	4.0	4.0	4.1	4.2	4.4	4.7	4.8	5.1	5.5	5.8	
60 to 80 (ref.)	3.4	3.5	3.6	3.7	3.8	3.9	3.9	3.9	4.1	4.2	4.6	4.6	5.0	5.3	5.6	
40 to 60	3.3	3.3	3.4	3.5	3.6	3.7	3.7	3.7	3.9	4.0	4.4	4.4	4.7	5.1	5.3	
20 to 40	3.1	3.2	3.3	3.4	3.5	3.5	3.6	3.6	3.7	3.9	4.2	4.2	4.5	4.9	5.1	
0 to 20	3.0	3.1	3.2	3.3	3.3	3.4	3.5	3.5	3.6	3.8	4.0	4.1	4.4	4.7	4.9	
-20 to 0	3.0	3.0	3.1	3.2	3.3	3.4	3.4	3.4	3.5	3.7	4.0	4.0	4.3	4.6	4.8	
-40 to -20	3.0	3.0	3.1	3.2	3.3	3.4	3.4	3.4	3.5	3.7	3.9	4.0	4.3	4.5	4.7	
-60 to -40 (ref.)	3.1	3.2	3.2	3.3	3.4	3.5	3.5	3.5	3.6	3.7	4.0	4.0	4.3	4.6	4.8	
-70 to -60 (ref.)	3.3	3.3	3.4	3.5	3.5	3.6	3.6	3.7	3.8	3.9	4.1	4.2	4.4	4.7	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	2.6	2.6	2.7	2.8	2.9	3.0	3.1	3.1	3.2	3.4	3.7	3.8	4.1	4.5	4.7	
60 to 80	2.4	2.4	2.5	2.6	2.7	2.8	2.8	2.9	3.0	3.1	3.5	3.5	3.9	4.2	4.5	
40 to 60	2.1	2.1	2.2	2.3	2.4	2.5	2.5	2.5	2.7	2.8	3.1	3.2	3.5	3.8	4.1	
20 to 40	1.8	1.8	1.9	2.0	2.1	2.2	2.2	2.2	2.3	2.5	2.8	2.8	3.1	3.5	3.7	
0 to 20	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	3.1	3.3	
-20 to 0	1.2	1.2	1.3	1.4	1.5	1.5	1.6	1.6	1.7	1.8	2.1	2.1	2.4	2.7	2.9	
-40 to -20	0.9	0.9	1.0	1.1	1.2	1.2	1.3	1.3	1.4	1.5	1.8	1.8	2.1	2.3	2.5	
-60 to -40	0.6	0.6	0.7	0.8	0.9	0.9	0.9	1.0	1.1	1.2	1.4	1.4	1.7	1.9	2.1	
-70 to -60	0.4	0.4	0.5	0.6	0.6	0.7	0.7	0.7	0.8	0.9	1.2	1.2	1.4	1.7	1.8	

Coef. disp. form. (frac. eq.) (ref.)	
P1	1.27040365E-01
Q1	8.81223287E+01
P2	4.08483065E-02
Q2	1.95227691E-02
P3	2.87645522E-01
Q3	4.52794933E-03

Fitting error of disp. form. σ [1E-6]		
	Visible	Infrared
Power ser. eq.	0.3	2.5
Frac. eq. (ref.)	0.4	3.3

Prod. Freq. (A to D)	C
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Similar glass type			
OHARA	S-BAL42	HOYA	-
CDGM	H-ZK2	SCHOTT	-

2019-4-1	Transmittance
2018-4-1	Prod. Freq.
2015-4-1	Color Code, Prod. Freq.