J-SK12

n_d = 1.583130 n_e = 1.585470

ν_d = 59.42 ν_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/℃]	60
CTE(100,300) [1E-7/℃]	73
Tg [℃]	604
At [℃]	650
StP [℃]	554
AP [℃]	593
SP [℃]	744
Ht cndct. [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	-
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 Δn/ΔT [1E-6/℃]

Temp. [℃]	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 Δn/ΔT [1E-6/℃]

Temp. [℃]	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

Similar glass type			
OHARA	S-BAL42	HOYA	-
CDGM	H-ZK2	SCHOTT	-

2022-7-1	StP, AP, SP
2019-4-1	Transmittance
2018-4-1	Prod. Freq.