

J-SF14

$n_d = 1.761820$

$n_e = 1.768573$

$v_d = 26.58$

$v_e = 26.37$

Glass code (d)
762266
Glass code (e)
769264

Spectral l.	Refractive idx
2.058	1.71383
1.970	1.71538
1.530	1.72298
1.129	1.73105
1.064	1.73273
t	1.73418
s	1.74025
A'	1.744758
r	1.749094
C	1.753580
C'	1.754862
He-Ne	1.756069
D	1.761573
d	1.761820
e	1.768573
F	1.782237
F'	1.784006
g	1.799796
h	1.815656
0.389	1.826028
i	-

Coef. disp. form. (pwr ser.)	
A0	2.98193445E+00
A1	-1.26593840E-02
A2	0.00000000E+00
A3	3.70386685E-02
A4	2.96054842E-03
A5	-4.81643932E-04
A6	1.14549779E-04
A7	-1.16507463E-05
A8	5.68089035E-07

Partial dispersion	
F-C	0.028657
F'-C'	0.029144
C-t	0.019396
C-A'	0.008822
d-C	0.008240
e-C	0.014993
g-d	0.037976
g-F	0.017559
h-g	0.015860
i-g	-
C'-t	0.020678
e-C'	0.013711
F'-e	0.015433
i-F'	-

Relative partial dispersion	
C-t/F-C	0.6768
C-A'/F-C	0.3078
d-C/F-C	0.2875
e-C/F-C	0.5232
g-d/F-C	1.3252
g-F/F-C	0.6127
h-g/F-C	0.5534
i-g/F-C	-
C'-t/F'-C'	0.7095
e-C'/F'-C'	0.4705
F'-e/F'-C'	0.5295
i-F'/F'-C'	-

Deviation of relative partial disp.	
ΔPdC	-0.0017
ΔPgF	0.0130

Internal CC (80%/5%)	
396/364	

Color Code (80%/5%)	
425/365	

CCI	
B	0.00
G	2.91
R	3.06

Thermal properties	
CTE(-30,70) [1E-7/°C]	83
CTE(100,300) [1E-7/°C]	99
Tg [°C]	617
At [°C]	647
Ht condct. [W/m·K]	1.020
Sp. heat [kJ/kg·K]	0.694
Ht diffus. [1E-6 m2/sec]	0.465

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

Mechanical properties	
Knoop hardness	513 (5)
Abrasion hardness	165
Young's mod. [GPa]	91.7
Shear mod. [GPa]	36.6
Poisson's ratio	0.254
Stress optical coef. [1E-5 nm/cm/Pa]	3.17

Internal trans. (10mm)	
λ [nm]	τ
280	0.00
290	0.00
300	0.00
310	0.00
320	0.00
330	0.00
340	0.00
350	0.00
360	0.02
370	0.15
380	0.45
390	0.71
400	0.84
420	0.937
440	0.963
460	0.973
480	0.979
500	0.985
550	0.993
600	0.996
650	0.996
700	0.997
800	0.997
900	0.997
1000	0.997
1200	0.998
1400	0.994
1600	0.989
1800	0.977
2000	0.972
2200	0.944
2400	0.922

Specific gravity	
3.17	

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.)	1.3	1.4	1.7	2.0	2.2	2.6	2.7	2.8	3.2	3.9	5.3	5.5	7.5	9.9	11.8	
60 to 80 (ref.)	1.2	1.3	1.6	1.8	2.1	2.4	2.5	2.6	3.0	3.6	5.0	5.2	7.1	9.4	11.3	
40 to 60	1.0	1.1	1.4	1.6	1.9	2.1	2.2	2.3	2.8	3.3	4.6	4.8	6.6	8.8	10.5	
20 to 40	0.9	1.0	1.2	1.4	1.7	2.0	2.0	2.1	2.5	3.1	4.3	4.5	6.2	8.2	9.8	
0 to 20	0.8	0.9	1.1	1.3	1.5	1.8	1.9	2.0	2.3	2.9	4.0	4.2	5.8	7.7	9.2	
-20 to 0	0.8	0.8	1.1	1.2	1.5	1.7	1.8	1.8	2.2	2.7	3.8	3.9	5.4	7.2	8.6	
-40 to -20	0.8	0.9	1.1	1.2	1.4	1.7	1.7	1.8	2.1	2.6	3.6	3.8	5.2	6.8	8.1	
-60 to -40 (ref.)	0.9	1.0	1.2	1.3	1.5	1.7	1.8	1.9	2.2	2.6	3.6	3.7	5.0	6.5	7.7	
-70 to -60 (ref.)	1.1	1.2	1.3	1.5	1.7	1.9	1.9	2.0	2.3	2.7	3.6	3.7	5.0	6.4	7.5	

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	0.2	0.3	0.6	0.9	1.2	1.5	1.6	1.7	2.1	2.8	4.2	4.4	6.3	8.8	10.6	
60 to 80	0.0	0.1	0.4	0.6	0.9	1.2	1.3	1.4	1.8	2.4	3.8	4.0	5.9	8.2	10.0	
40 to 60	-0.3	-0.2	0.1	0.3	0.5	0.8	0.9	1.0	1.4	2.0	3.3	3.4	5.2	7.4	9.1	
20 to 40	-0.6	-0.5	-0.3	-0.1	0.2	0.4	0.5	0.6	1.0	1.5	2.7	2.9	4.6	6.6	8.2	
0 to 20	-0.9	-0.8	-0.6	-0.4	-0.2	0.0	0.1	0.2	0.6	1.1	2.2	2.4	4.0	5.9	7.3	
-20 to 0	-1.2	-1.2	-0.9	-0.8	-0.6	-0.3	-0.3	-0.2	0.2	0.6	1.7	1.9	3.3	5.1	6.4	
-40 to -20	-1.5	-1.5	-1.3	-1.1	-0.9	-0.7	-0.6	-0.6	-0.2	0.2	1.2	1.3	2.7	4.3	5.6	
-60 to -40	-1.9	-1.8	-1.6	-1.5	-1.3	-1.1	-1.0	-1.0	-0.7	-0.3	0.7	0.8	2.0	3.5	4.7	
-70 to -60	-2.1	-2.0	-1.9	-1.7	-1.6	-1.4	-1.3	-1.3	-1.0	-0.6	0.3	0.4	1.6	3.0	4.0	

Coef. disp. form. (frac. eq.) (ref.)	
P1	1.05344766E-01
Q1	7.48265970E+01
P2	2.43859017E-02
Q2	6.24217837E-02
P3	3.73151673E-01
Q3	8.83028805E-03

Fitting error of disp. form. σ [1E-6]		
	Visible	Infrared
Power ser. eq.	0.8	5.7
Frac. eq. (ref.)	2.8	10.3

Prod. Freq. (A to D)	C
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Similar glass type			
OHARA	S-TIH14	HOYA	FD140
CDGM	H-ZF12	SCHOTT	N-SF14

2019-4-1	Transmittance
2015-4-1	Color Code, Prod. Freq.
2009-9-1	1st edition