

J-SF5

$n_d = 1.672700$

$n_e = 1.677639$

$v_d = 32.19$

$v_e = 31.94$

Glass code (d)
673322
Glass code (e)
678319

Spectral l.	Refractive idx
2.058	1.63483
1.970	1.63621
1.530	1.64279
1.129	1.64942
1.064	1.65076
t	1.65191
s	1.65660
A'	1.660023
r	1.663279
C	1.666619
C'	1.667570
He-Ne	1.668463
D	1.672518
d	1.672700
e	1.677639
F	1.687520
F'	1.688788
g	1.700004
h	1.711077
0.389	1.718210
i	-

Coef. disp. form. (pwr ser.)	
A0	2.71072072E+00
A1	-1.02160186E-02
A2	-9.06763794E-05
A3	2.88337808E-02
A4	5.57561753E-04
A5	1.33564048E-04
A6	-1.34358407E-05
A7	1.19202152E-06
A8	0.00000000E+00

Partial dispersion	
F-C	0.020901
F'-C'	0.021218
C-t	0.014710
C-A'	0.006596
d-C	0.006081
e-C	0.011020
g-d	0.027304
g-F	0.012484
h-g	0.011073
i-g	-
C'-t	0.015661
e-C'	0.010069
F'-e	0.011149
i-F'	-

Relative partial dispersion	
C-t/F-C	0.7038
C-A'/F-C	0.3156
d-C/F-C	0.2909
e-C/F-C	0.5272
g-d/F-C	1.3063
g-F/F-C	0.5973
h-g/F-C	0.5298
i-g/F-C	-
C'-t/F'-C'	0.7381
e-C'/F'-C'	0.4745
F'-e/F'-C'	0.5255
i-F'/F'-C'	-

Deviation of relative partial disp.	
ΔPdC	-0.0008
ΔPgF	0.0069

Internal CC (80%/5%)	
386/357	

Color Code (80%/5%)	
400/360	

CCI	
B	0.00
G	1.40
R	1.45

Thermal properties	
CTE(-30,70) [1E-7/°C]	85
CTE(100,300) [1E-7/°C]	102
Tg [°C]	582
At [°C]	612
Ht condct. [W/m·K]	1.091
Sp. heat [kJ/kg·K]	0.723
Ht diffus. [1E-6 m2/sec]	0.520

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

Mechanical properties	
Knoop hardness	500 (5)
Abrasion hardness	151
Young's mod. [GPa]	83.3
Shear mod. [GPa]	33.4
Poisson's ratio	0.249
Stress optical coef. [1E-5 nm/cm/Pa]	2.71

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	0.08
370	0.36
380	0.68
390	0.86
400	0.930
420	0.973
440	0.983
460	0.987
480	0.990
500	0.993
550	0.996
600	0.997
650	0.997
700	0.998
800	0.996
900	0.994
1000	0.995
1200	0.998
1400	0.998
1600	0.990
1800	0.973
2000	0.960
2200	0.917
2400	0.89

Specific gravity	
2.9	

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.)	0.7	0.8	1.0	1.2	1.4	1.7	1.8	1.8	2.2	2.6	3.6	3.7	5.1	6.6	7.8	
60 to 80 (ref.)	0.6	0.7	1.0	1.1	1.3	1.6	1.6	1.7	2.0	2.5	3.4	3.6	4.8	6.3	7.5	
40 to 60	0.5	0.6	0.8	1.0	1.2	1.4	1.5	1.6	1.9	2.3	3.2	3.3	4.5	6.0	7.0	
20 to 40	0.5	0.5	0.8	0.9	1.1	1.3	1.4	1.5	1.8	2.2	3.0	3.2	4.3	5.6	6.6	
0 to 20	0.5	0.5	0.7	0.9	1.1	1.3	1.4	1.4	1.7	2.1	2.9	3.0	4.1	5.3	6.2	
-20 to 0	0.5	0.6	0.8	0.9	1.1	1.3	1.3	1.4	1.7	2.0	2.8	2.9	3.9	5.1	5.9	
-40 to -20	0.6	0.7	0.9	1.0	1.2	1.3	1.4	1.5	1.7	2.0	2.8	2.9	3.8	4.9	5.7	
-60 to -40 (ref.)	0.8	0.9	1.0	1.2	1.3	1.5	1.6	1.6	1.9	2.2	2.8	2.9	3.8	4.8	5.5	
-70 to -60 (ref.)	1.0	1.1	1.3	1.4	1.5	1.7	1.7	1.8	2.0	2.3	3.0	3.1	3.9	4.8	5.5	

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	-0.3	-0.3	0.0	0.2	0.4	0.6	0.7	0.8	1.1	1.6	2.6	2.7	4.0	5.6	6.7	
60 to 80	-0.5	-0.4	-0.2	0.0	0.2	0.4	0.5	0.6	0.9	1.3	2.3	2.4	3.7	5.2	6.3	
40 to 60	-0.7	-0.6	-0.4	-0.2	0.0	0.2	0.2	0.3	0.6	1.0	1.9	2.0	3.2	4.6	5.7	
20 to 40	-0.9	-0.9	-0.7	-0.5	-0.3	-0.1	0.0	0.0	0.3	0.7	1.6	1.7	2.8	4.1	5.1	
0 to 20	-1.2	-1.1	-0.9	-0.7	-0.6	-0.4	-0.3	-0.3	0.0	0.4	1.2	1.3	2.3	3.6	4.5	
-20 to 0	-1.4	-1.3	-1.1	-1.0	-0.8	-0.6	-0.6	-0.5	-0.3	0.1	0.8	0.9	1.9	3.0	3.9	
-40 to -20	-1.6	-1.6	-1.4	-1.2	-1.1	-0.9	-0.9	-0.8	-0.6	-0.2	0.5	0.6	1.5	2.5	3.3	
-60 to -40	-1.8	-1.8	-1.6	-1.5	-1.3	-1.2	-1.1	-1.1	-0.8	-0.5	0.1	0.2	1.0	2.0	2.7	
-70 to -60	-2.0	-2.0	-1.8	-1.7	-1.5	-1.4	-1.3	-1.3	-1.1	-0.8	-0.2	-0.1	0.7	1.6	2.2	

Coef. disp. form. (frac. eq.) (ref.)	
P1	1.26549349E-01
Q1	9.15118960E+01
P2	1.95616062E-02
Q2	5.84865283E-02
P3	3.43630919E-01
Q3	7.87974955E-03

Fitting error of disp. form. σ [1E-6]		
	Visible	Infrared
Power ser. eq.	0.7	3.7
Frac. eq. (ref.)	1.4	5.8

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

Similar glass type			
OHARA	S-TIM25	HOYA	E-FD5
CDGM	H-ZF2	SCHOTT	N-SF5

2019-4-1	Transmittance
2015-4-1	Color Code, Prod. Freq., Similar glass type
2011-2-1	Similar glass type