

J-SF6HS

$n_d = 1.805180$

$n_e = 1.812633$

$v_d = 25.45$

$v_e = 25.24$

Glass code (d)
805255
Glass code (e)
813252

Spectral l.	Refractive idx
2.058	1.75397
1.970	1.75551
1.530	1.76319
1.129	1.77161
1.064	1.77341
t	1.77497
s	1.78153
A'	1.786439
r	1.791185
C	1.796109
C'	1.797519
He-Ne	1.798846
D	1.804907
d	1.805180
e	1.812633
F	1.827749
F'	1.829709
g	1.847229
h	1.864867
0.389	1.876421
i	-

Coef. disp. form. (pwr ser.)	
A0	3.11993645E+00
A1	-1.26679163E-02
A2	0.00000000E+00
A3	4.21698355E-02
A4	3.04768926E-03
A5	-4.20720196E-04
A6	1.06770582E-04
A7	-1.09382035E-05
A8	5.57077794E-07

Partial dispersion	
F-C	0.031640
F'-C'	0.032190
C-t	0.021142
C-A'	0.009670
d-C	0.009071
e-C	0.016524
g-d	0.042049
g-F	0.019480
h-g	0.017638
i-g	-
C'-t	0.022552
e-C'	0.015114
F'-e	0.017076
i-F'	-

Relative partial dispersion	
C-t/F-C	0.6682
C-A'/F-C	0.3056
d-C/F-C	0.2867
e-C/F-C	0.5223
g-d/F-C	1.3290
g-F/F-C	0.6157
h-g/F-C	0.5575
i-g/F-C	-
C'-t/F'-C'	0.7006
e-C'/F'-C'	0.4695
F'-e/F'-C'	0.5305
i-F'/F'-C'	-

Deviation of relative partial disp.	
ΔPdC	-0.0020
ΔPgF	0.0140

Internal CC (80%/5%)	
390/361	
Color Code (80%/5%)	
425/360	
CCI	
B	0.00
G	2.25
R	2.36

Thermal properties	
CTE(-30,70) [1E-7/°C]	86
CTE(100,300) [1E-7/°C]	110
Tg [°C]	571
At [°C]	611
StP [°C]	524
AP [°C]	558
SP [°C]	679
Ht condct. [W/m·K]	1.070
Sp. heat [kJ/kg·K]	0.662
Ht diffus. [1E-6 m2/sec]	0.484

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	482 (5)
Abrasion hardness	182
Young's mod. [GPa]	92.9
Shear mod. [GPa]	36.7
Poisson's ratio	0.264
Stress optical coef. [1E-5 nm/cm/Pa]	2.95

Internal trans. (10mm)		
λ [nm]	τ	
280	-	
290	-	
300	-	
310	-	
320	-	
330	-	
340	-	
350	-	
360	0.04	
370	0.26	
380	0.58	
390	0.80	
400	0.89	
420	0.949	
440	0.972	
460	0.982	
480	0.987	
500	0.991	
550	0.997	
600	0.998	
650	0.999	
700	0.999	
800	0.999	
900	0.999	
1000	0.998	
1200	0.997	
1400	0.993	
1600	0.987	
1800	0.973	
2000	0.962	
2200	0.929	
2400	0.88	

Specific gravity
3.34

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	-0.6	-0.3	0.0	0.3	0.7	0.8	0.9	1.4	2.1	3.6	3.8	5.9	8.5	10.7	
60 to 80 (ref.)	-0.9	-0.7	-0.4	-0.1	0.2	0.5	0.6	0.7	1.2	1.9	3.3	3.5	5.5	8.1	10.2	
40 to 60	-1.0	-0.9	-0.5	-0.3	0.0	0.3	0.4	0.5	1.0	1.6	3.0	3.2	5.1	7.5	9.4	
20 to 40	-1.1	-1.0	-0.7	-0.4	-0.1	0.2	0.3	0.4	0.8	1.4	2.7	2.9	4.7	6.9	8.7	
0 to 20	-1.2	-1.0	-0.7	-0.5	-0.3	0.0	0.1	0.2	0.7	1.2	2.5	2.6	4.3	6.4	8.1	
-20 to 0	-1.2	-1.1	-0.8	-0.5	-0.3	0.0	0.1	0.1	0.6	1.1	2.3	2.4	4.0	5.9	7.5	
-40 to -20	-1.1	-1.0	-0.7	-0.5	-0.3	0.0	0.1	0.1	0.5	1.0	2.1	2.3	3.7	5.5	7.0	
-60 to -40 (ref.)	-0.9	-0.8	-0.6	-0.4	-0.2	0.1	0.2	0.2	0.6	1.1	2.1	2.2	3.6	5.2	6.6	
-70 to -60 (ref.)	-0.7	-0.6	-0.4	-0.2	0.0	0.3	0.3	0.4	0.8	1.2	2.2	2.3	3.6	5.1	6.3	

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	-1.8	-1.7	-1.4	-1.1	-0.8	-0.4	-0.3	-0.2	0.3	1.0	2.5	2.7	4.7	7.4	9.5	
60 to 80	-2.1	-1.9	-1.6	-1.3	-1.0	-0.7	-0.6	-0.5	0.0	0.7	2.1	2.3	4.3	6.8	8.9	
40 to 60	-2.3	-2.2	-1.9	-1.6	-1.4	-1.0	-0.9	-0.9	-0.4	0.2	1.6	1.8	3.7	6.0	8.0	
20 to 40	-2.6	-2.5	-2.2	-2.0	-1.7	-1.4	-1.3	-1.2	-0.8	-0.2	1.1	1.3	3.0	5.2	7.1	
0 to 20	-2.9	-2.8	-2.5	-2.3	-2.0	-1.7	-1.7	-1.6	-1.1	-0.6	0.6	0.8	2.4	4.5	6.2	
-20 to 0	-3.2	-3.1	-2.8	-2.6	-2.4	-2.1	-2.0	-1.9	-1.5	-1.0	0.1	0.3	1.8	3.7	5.3	
-40 to -20	-3.5	-3.4	-3.1	-2.9	-2.6	-2.5	-2.4	-2.3	-1.9	-1.4	-0.4	-0.2	1.2	2.9	4.4	
-60 to -40	-3.8	-3.7	-3.4	-3.2	-3.0	-2.8	-2.7	-2.7	-2.3	-1.8	-0.9	-0.7	0.6	2.2	3.5	
-70 to -60	-4.0	-3.9	-3.7	-3.5	-3.3	-3.1	-3.0	-2.9	-2.6	-2.2	-1.2	-1.1	0.1	1.6	2.8	

Coef. disp. form. (frac. eq.) (ref.)	
P1	1.01435791E-01
Q1	7.59148418E+01
P2	2.72714884E-02
Q2	6.17300189E-02
P3	3.86525039E-01
Q3	8.91225912E-03

Fitting error of disp. form. σ [1E-6]		
	Visible	Infrared
Power ser. eq.	0.9	3.7
Frac. eq. (ref.)	3.3	11.4

Prod. Freq. (A to D)	A
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Similar glass type			
OHARA	S-TIH6	HOYA	FD60-W
CDGM	H-ZF7LAGT	SCHOTT	N-SF6HT

2022-7-1	StP, AP, SP
2019-4-1	Transmittance
2018-4-1	Young's mod., Shear mod., Similar glass type

HIKARI GLASS CO., LTD.