

# J-LASFH17HS

$n_d = 2.000690$

$n_e = 2.009954$

$v_d = 25.46$

$v_e = 25.25$

Glass code (d)	001255
Glass code (e)	010253

Spectral l.	Refractive idx
2.058	1.93788
1.970	1.93971
1.530	1.94886
1.129	1.95908
1.064	1.96128
t	1.96320
s	1.97130
A'	1.977399
r	1.983293
C	1.989413
C'	1.991165
He-Ne	1.992815
D	2.000351
d	2.000690
e	2.009954
F	2.028724
F'	2.031156
g	2.052860
h	2.074654
0.389	2.088894
i	-

Coef. disp. form. (pwr ser.)	
A0	3.81071676E+00
A1	-1.63737936E-02
A2	0.00000000E+00
A3	5.83672875E-02
A4	4.12726108E-03
A5	-5.52229126E-04
A6	1.41302816E-04
A7	-1.45517862E-05
A8	7.44426800E-07

Partial dispersion	
F-C	0.039311
F'-C'	0.039991
C-t	0.026211
C-A'	0.012014
d-C	0.011277
e-C	0.020541
g-d	0.052170
g-F	0.024136
h-g	0.021794
i-g	-
C'-t	0.027963
e-C'	0.018789
F'-e	0.021202
i-F'	-

Relative partial dispersion	
C-t/F-C	0.6668
C-A'/F-C	0.3056
d-C/F-C	0.2869
e-C/F-C	0.5225
g-d/F-C	1.3271
g-F/F-C	0.6140
h-g/F-C	0.5544
i-g/F-C	-
C'-t/F'-C'	0.6992
e-C'/F'-C'	0.4698
F'-e/F'-C'	0.5302
i-F'/F'-C'	-

Deviation of relative partial disp.	
$\Delta PdC$	-0.0018
$\Delta PgF$	0.0123

Internal CC (80%/5%)	
419/371	

Color Code (70%/5%)	
440/370	

CCI	
B	0.00
G	7.68
R	8.13

Thermal properties	
CTE(-30,70) [1E-7/°C]	68
CTE(100,300) [1E-7/°C]	83
Tg [°C]	681
At [°C]	727
Ht condct. [W/m·K]	1.020
Sp. heat [kJ/kg·K]	0.504
Ht diffus. [1E-6 m2/sec]	0.432

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	605 (6)
Abrasion hardness	86
Young's mod. [GPa]	123.8
Shear mod. [GPa]	47.7
Poisson's ratio	0.298
Stress optical coef. [1E-5 nm/cm/Pa]	1.59

Internal trans. (10mm)	
$\lambda$ [nm]	$\tau$
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	0.00
370	0.04
380	0.22
390	0.46
400	0.62
420	0.80
440	0.88
460	0.924
480	0.948
500	0.964
550	0.987
600	0.994
650	0.995
700	0.998
800	0.999
900	0.998
1000	0.998
1200	0.999
1400	0.999
1600	0.997
1800	0.991
2000	0.979
2200	0.949
2400	0.86

Specific gravity	
4.69	

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.)	3.4	3.6	4.0	4.5	4.9	5.4	5.6	5.7	6.4	7.2	9.2	9.4	12.2	15.5	17.9	
60 to 80 (ref.)	3.3	3.4	3.9	4.3	4.7	5.2	5.3	5.4	6.1	6.9	8.8	9.0	11.7	14.9	17.2	
40 to 60	3.0	3.1	3.6	4.0	4.4	4.8	5.0	5.1	5.7	6.5	8.3	8.5	11.1	14.1	16.3	
20 to 40	2.8	2.9	3.3	3.7	4.1	4.6	4.7	4.8	5.4	6.1	7.8	8.1	10.5	13.3	15.4	
0 to 20	2.7	2.8	3.2	3.5	3.9	4.3	4.5	4.6	5.1	5.8	7.4	7.7	9.9	12.6	14.5	
-20 to 0	2.6	2.7	3.0	3.4	3.8	4.2	4.3	4.4	4.9	5.6	7.1	7.3	9.4	11.9	13.7	
-40 to -20	2.6	2.6	3.0	3.3	3.7	4.1	4.2	4.3	4.8	5.4	6.8	7.0	9.0	11.4	13.1	
-60 to -40 (ref.)	2.7	2.7	3.1	3.4	3.7	4.1	4.2	4.3	4.8	5.3	6.7	6.9	8.7	10.9	12.5	
-70 to -60 (ref.)	2.8	2.9	3.2	3.5	3.8	4.2	4.3	4.4	4.8	5.4	6.7	6.9	8.6	10.7	12.2	

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	2.2	2.3	2.8	3.3	3.7	4.2	4.3	4.5	5.1	6.0	7.9	8.2	10.9	14.2	16.6	
60 to 80	1.9	2.0	2.5	2.9	3.4	3.8	4.0	4.1	4.7	5.5	7.4	7.7	10.3	13.4	15.8	
40 to 60	1.5	1.6	2.1	2.5	2.9	3.3	3.5	3.6	4.2	5.0	6.7	7.0	9.5	12.4	14.6	
20 to 40	1.1	1.2	1.6	2.0	2.4	2.8	3.0	3.1	3.7	4.4	6.1	6.3	8.6	11.5	13.5	
0 to 20	0.7	0.8	1.2	1.6	1.9	2.3	2.5	2.6	3.1	3.8	5.4	5.6	7.8	10.5	12.4	
-20 to 0	0.3	0.4	0.8	1.1	1.5	1.9	2.0	2.1	2.6	3.2	4.7	4.9	7.0	9.5	11.3	
-40 to -20	-0.1	0.0	0.4	0.7	1.0	1.4	1.5	1.6	2.1	2.7	4.1	4.3	6.2	8.5	10.2	
-60 to -40	-0.5	-0.4	-0.1	0.2	0.5	0.9	1.0	1.1	1.5	2.1	3.4	3.6	5.4	7.5	9.0	
-70 to -60	-0.8	-0.7	-0.4	-0.1	0.2	0.5	0.6	0.7	1.1	1.7	2.9	3.1	4.8	6.8	8.2	

Coef. disp. form. (frac. eq.) (ref.)	
P1	1.00167110E-01
Q1	7.47066024E+01
P2	2.87199284E-02
Q2	6.00528312E-02
P3	4.54734535E-01
Q3	8.29318245E-03

Fitting error of disp. form. $\sigma$ [1E-6]		
	Visible	Infrared
Power ser. eq.	1.0	4.8
Frac. eq. (ref.)	3.1	13.8

Prod. Freq. (A to D)	A
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Similar glass type			
OHARA	-	HOYA	TAFD40
CDGM	H-ZLaF90	SCHOTT	-

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2019-4-1	Transmittance
2016-4-1	1st edition