

J-PSKH1

$n_d = 1.593190$

$n_e = 1.595274$

$v_d = 67.90$

$v_e = 67.54$

Glass code (d)
593679
Glass code (e)
595675

Spectral l.	Refractive idx
2.058	1.57343
1.970	1.57433
1.530	1.57847
1.129	1.58228
1.064	1.58299
t	1.58358
s	1.58592
A'	1.587541
r	1.589039
C	1.590540
C'	1.590961
He-Ne	1.591354
D	1.593112
d	1.593190
e	1.595274
F	1.599276
F'	1.599774
g	1.604028
h	1.607963
0.389	1.610358
i	-

Coef. disp. form. (pwr ser.)	
A0	2.50208083E+00
A1	-6.72143907E-03
A2	-5.34313751E-05
A3	1.28264400E-02
A4	1.56205388E-04
A5	1.21593549E-06
A6	9.59550869E-08
A7	0.00000000E+00
A8	0.00000000E+00

Partial dispersion	
F-C	0.008736
F'-C'	0.008813
C-t	0.006956
C-A'	0.002999
d-C	0.002650
e-C	0.004734
g-d	0.010838
g-F	0.004752
h-g	0.003935
i-g	-
C'-t	0.007377
e-C'	0.004313
F'-e	0.004500
i-F'	-

Relative partial dispersion	
C-t/F-C	0.7962
C-A'/F-C	0.3433
d-C/F-C	0.3033
e-C/F-C	0.5419
g-d/F-C	1.2406
g-F/F-C	0.5440
h-g/F-C	0.4504
i-g/F-C	-
C'-t/F'-C'	0.8371
e-C'/F'-C'	0.4894
F'-e/F'-C'	0.5106
i-F'/F'-C'	-

Deviation of relative partial disp.	
ΔPdC	-0.0045
ΔPgF	0.0135

Internal CC (80%/5%)	
344/274	
Color Code (80%/5%)	
355/275	
CCI	
B	0.00
G	0.20
R	0.18

Thermal properties	
CTE(-30,70) [1E-7/°C]	114
CTE(100,300) [1E-7/°C]	132
Tg [°C]	564
At [°C]	591
StP [°C]	516
AP [°C]	545
SP [°C]	639
Ht condct. [W/m·K]	0.663
Sp. heat [kJ/kg·K]	0.522
Ht diffus. [1E-6 m2/sec]	0.309

Chemical properties [class]	
Acid res. (surface)	3
Alkaline detergent res.	3
Climate resistance	1
Water res. (powder)	1
Acid res. (powder)	1

Mechanical properties	
Knoop hardness	290 (3)
Abrasion hardness	540
Young's mod. [GPa]	76.0
Shear mod. [GPa]	29.3
Poisson's ratio	0.298
Stress optical coef. [1E-5 nm/cm/Pa]	0.60

Internal trans. (10mm)		
λ [nm]	τ	
280	0.06	
290	0.10	
300	0.18	
310	0.29	
320	0.45	
330	0.61	
340	0.76	
350	0.86	
360	0.927	
370	0.962	
380	0.980	
390	0.989	
400	0.992	
420	0.994	
440	0.994	
460	0.995	
480	0.996	
500	0.998	
550	0.999	
600	0.998	
650	0.998	
700	0.997	
800	0.996	
900	0.996	
1000	0.997	
1200	0.998	
1400	0.999	
1600	0.999	
1800	0.997	
2000	0.993	
2200	0.989	
2400	0.983	

Specific gravity
4.1

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.)	-6.1	-6.1	-6.0	-5.9	-5.9	-5.8	-5.8	-5.8	-5.7	-5.6	-5.3	-5.3	-5.0	-4.8	-4.6	
60 to 80 (ref.)	-6.1	-6.0	-5.9	-5.9	-5.8	-5.8	-5.7	-5.7	-5.6	-5.5	-5.3	-5.3	-5.0	-4.7	-4.5	
40 to 60	-6.0	-6.0	-5.9	-5.8	-5.8	-5.7	-5.7	-5.7	-5.6	-5.5	-5.3	-5.2	-5.0	-4.7	-4.5	
20 to 40	-5.9	-5.8	-5.8	-5.7	-5.7	-5.6	-5.6	-5.6	-5.5	-5.4	-5.2	-5.1	-4.9	-4.6	-4.4	
0 to 20	-5.7	-5.7	-5.6	-5.6	-5.5	-5.5	-5.4	-5.4	-5.3	-5.2	-5.0	-5.0	-4.8	-4.5	-4.3	
-20 to 0	-5.5	-5.5	-5.4	-5.4	-5.3	-5.3	-5.3	-5.2	-5.2	-5.1	-4.9	-4.8	-4.6	-4.4	-4.2	
-40 to -20	-5.3	-5.3	-5.2	-5.1	-5.1	-5.0	-5.0	-5.0	-4.9	-4.8	-4.6	-4.6	-4.4	-4.1	-4.0	
-60 to -40 (ref.)	-4.9	-4.9	-4.9	-4.8	-4.7	-4.7	-4.7	-4.7	-4.6	-4.5	-4.3	-4.3	-4.0	-3.8	-3.7	
-70 to -60 (ref.)	-4.6	-4.6	-4.5	-4.5	-4.4	-4.4	-4.3	-4.3	-4.2	-4.2	-4.0	-3.9	-3.7	-3.5	-3.3	

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	-7.1	-7.1	-7.0	-6.9	-6.9	-6.8	-6.8	-6.8	-6.7	-6.6	-6.4	-6.3	-6.1	-5.8	-5.6	
60 to 80	-7.1	-7.1	-7.0	-7.0	-6.9	-6.8	-6.8	-6.8	-6.7	-6.6	-6.4	-6.4	-6.1	-5.9	-5.7	
40 to 60	-7.2	-7.2	-7.1	-7.0	-7.0	-6.9	-6.9	-6.9	-6.8	-6.7	-6.5	-6.5	-6.2	-6.0	-5.8	
20 to 40	-7.2	-7.2	-7.1	-7.1	-7.0	-7.0	-7.0	-6.9	-6.9	-6.8	-6.6	-6.6	-6.3	-6.1	-5.9	
0 to 20	-7.3	-7.3	-7.2	-7.2	-7.1	-7.0	-7.0	-7.0	-6.9	-6.8	-6.7	-6.6	-6.4	-6.2	-6.0	
-20 to 0	-7.4	-7.3	-7.3	-7.2	-7.2	-7.1	-7.1	-7.1	-7.0	-6.9	-6.7	-6.7	-6.5	-6.3	-6.1	
-40 to -20	-7.4	-7.4	-7.3	-7.3	-7.2	-7.2	-7.2	-7.2	-7.1	-7.0	-6.8	-6.8	-6.6	-6.4	-6.2	
-60 to -40	-7.5	-7.5	-7.4	-7.3	-7.3	-7.3	-7.2	-7.2	-7.2	-7.1	-6.9	-6.9	-6.7	-6.5	-6.3	
-70 to -60	-7.5	-7.5	-7.4	-7.4	-7.4	-7.3	-7.3	-7.3	-7.2	-7.1	-7.0	-6.9	-6.8	-6.5	-6.4	

Coef. disp. form. (frac. eq.) (ref.)	
P1	1.07864082E-01
Q1	1.08487364E+02
P2	5.74402039E-02
Q2	1.50165453E-02
P3	2.76204496E-01
Q3	3.75883453E-03

Fitting error of disp. form. σ [1E-6]		
	Visible	Infrared
Power ser. eq.	0.4	5.3
Frac. eq. (ref.)	0.4	5.6

Prod. Freq. (A to D)	A
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Similar glass type			
OHARA	S-FPM2	HOYA	FCD515
CDGM	H-ZPK5	SCHOTT	-

2022-7-1	StP, AP, SP
2020-4-1	Similar glass type
2019-4-1	Transmittance