

J-FK5

$n_d = 1.487490$

$n_e = 1.489145$

$v_d = 70.31$

$v_e = 70.14$

Glass code (d)
487703
Glass code (e)
489701

Spectral l.	Refractive idx
2.058	1.46613
1.970	1.46742
1.530	1.47314
1.129	1.47773
1.064	1.47850
t	1.47912
s	1.48137
A'	1.482813
r	1.484095
C	1.485343
C'	1.485688
He-Ne	1.486009
D	1.487428
d	1.487490
e	1.489145
F	1.492276
F'	1.492662
g	1.495944
h	1.498956
0.389	1.500781
i	1.504034

Coef. disp. form. (pwr ser.)	
A0	2.18826855E+00
A1	-9.19044724E-03
A2	-1.11621071E-04
A3	9.26372815E-03
A4	7.34900733E-05
A5	4.19724242E-06
A6	-1.15412203E-07
A7	0.00000000E+00
A8	0.00000000E+00

Partial dispersion	
F-C	0.006933
F'-C'	0.006974
C-t	0.006227
C-A'	0.002530
d-C	0.002147
e-C	0.003802
g-d	0.008454
g-F	0.003668
h-g	0.003012
i-g	0.008090
C'-t	0.006572
e-C'	0.003457
F'-e	0.003517
i-F'	0.011372

Relative partial dispersion	
C-t/F-C	0.8982
C-A'/F-C	0.3649
d-C/F-C	0.3097
e-C/F-C	0.5484
g-d/F-C	1.2194
g-F/F-C	0.5291
h-g/F-C	0.4344
i-g/F-C	1.1669
C'-t/F'-C'	0.9424
e-C'/F'-C'	0.4957
F'-e/F'-C'	0.5043
i-F'/F'-C'	1.6306

Deviation of relative partial disp.	
ΔPdC	0.0007
ΔPgF	0.0027

Internal CC (80%/5%)	
302/269	

Color Code (80%/5%)	
305/270	

CCI	
B	0.00
G	0.02
R	0.00

Thermal properties	
CTE(-30,70) [1E-7/°C]	89
CTE(100,300) [1E-7/°C]	97
Tg [°C]	468
At [°C]	559
Ht condct. [W/m·K]	1.030
Sp. heat [kJ/kg·K]	0.795
Ht diffus. [1E-6 m2/sec]	0.532

Chemical properties [class]	
Acid res. (surface)	2
Alkaline detergent res.	3
Climate resistance	2
Water res. (powder)	4
Acid res. (powder)	5

Mechanical properties	
Knoop hardness	432 (4)
Abrasion hardness	126
Young's mod. [GPa]	60.1
Shear mod. [GPa]	24.3
Poisson's ratio	0.235
Stress optical coef. [1E-5 nm/cm/Pa]	2.97

Internal trans. (10mm)	
λ [nm]	τ
280	0.24
290	0.53
300	0.77
310	0.900
320	0.955
330	0.978
340	0.988
350	0.994
360	0.996
370	0.996
380	0.996
390	0.998
400	0.999
420	0.998
440	0.997
460	0.998
480	0.998
500	0.998
550	0.998
600	0.998
650	0.997
700	0.998
800	0.999
900	0.999
1000	0.999
1200	0.999
1400	0.969
1600	0.987
1800	0.980
2000	0.968
2200	0.82
2400	0.80

Specific gravity	
2.45	

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	-1.3	-1.2	-1.1	-1.1	-1.0	-1.0	-1.0	-0.9	-0.8	-0.6	-0.6	-0.4	-0.2	-0.1	
60 to 80 (ref.)	-1.4	-1.4	-1.3	-1.3	-1.2	-1.2	-1.1	-1.1	-1.1	-1.0	-0.8	-0.8	-0.6	-0.4	-0.2	
40 to 60	-1.6	-1.6	-1.5	-1.4	-1.4	-1.3	-1.3	-1.3	-1.2	-1.2	-1.0	-1.0	-0.8	-0.6	-0.4	
20 to 40	-1.7	-1.7	-1.6	-1.6	-1.5	-1.5	-1.5	-1.5	-1.4	-1.3	-1.2	-1.1	-0.9	-0.8	-0.6	
0 to 20	-1.8	-1.8	-1.8	-1.7	-1.7	-1.6	-1.6	-1.6	-1.5	-1.4	-1.3	-1.3	-1.1	-0.9	-0.8	
-20 to 0	-1.9	-1.9	-1.8	-1.8	-1.7	-1.7	-1.7	-1.7	-1.6	-1.5	-1.4	-1.3	-1.2	-1.0	-0.9	
-40 to -20	-1.9	-1.9	-1.8	-1.8	-1.7	-1.7	-1.7	-1.7	-1.6	-1.5	-1.4	-1.4	-1.2	-1.0	-0.9	
-60 to -40 (ref.)	-1.8	-1.8	-1.8	-1.7	-1.7	-1.6	-1.6	-1.6	-1.5	-1.5	-1.3	-1.3	-1.1	-1.0	-0.9	
-70 to -60 (ref.)	-1.7	-1.7	-1.6	-1.6	-1.5	-1.5	-1.5	-1.5	-1.4	-1.4	-1.2	-1.2	-1.0	-0.9	-0.8	

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	-2.2	-2.1	-2.0	-2.0	-1.9	-1.9	-1.9	-1.8	-1.7	-1.6	-1.6	-1.4	-1.2	-1.0	
60 to 80	-2.4	-2.4	-2.3	-2.3	-2.2	-2.2	-2.2	-2.1	-2.1	-2.0	-1.8	-1.8	-1.6	-1.4	-1.3	
40 to 60	-2.7	-2.7	-2.6	-2.6	-2.5	-2.5	-2.5	-2.4	-2.4	-2.3	-2.1	-2.1	-1.9	-1.7	-1.6	
20 to 40	-3.0	-3.0	-2.9	-2.9	-2.8	-2.8	-2.8	-2.8	-2.7	-2.6	-2.5	-2.4	-2.3	-2.1	-2.0	
0 to 20	-3.3	-3.3	-3.2	-3.2	-3.1	-3.1	-3.1	-3.1	-3.0	-2.9	-2.8	-2.8	-2.6	-2.4	-2.3	
-20 to 0	-3.6	-3.6	-3.5	-3.5	-3.4	-3.4	-3.4	-3.4	-3.3	-3.3	-3.1	-3.1	-2.9	-2.8	-2.7	
-40 to -20	-3.9	-3.9	-3.8	-3.8	-3.8	-3.7	-3.7	-3.7	-3.6	-3.6	-3.4	-3.4	-3.3	-3.1	-3.0	
-60 to -40	-4.2	-4.2	-4.1	-4.1	-4.1	-4.0	-4.0	-4.0	-3.9	-3.9	-3.8	-3.7	-3.6	-3.4	-3.3	
-70 to -60	-4.4	-4.4	-4.4	-4.3	-4.3	-4.3	-4.2	-4.2	-4.2	-4.1	-4.0	-4.0	-3.9	-3.7	-3.6	

Coef. disp. form. (frac. eq.) (ref.)	
P1	1.29676653E-01
Q1	8.17573782E+01
P2	2.84127590E-02
Q2	1.70456177E-02
P3	2.55329066E-01
Q3	4.25672246E-03

Fitting error of disp. form. σ [1E-6]		
	Visible	Infrared
Power ser. eq.	0.3	6.1
Frac. eq. (ref.)	0.3	6.7

Prod. Freq. (A to D)	A
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Similar glass type			
OHARA	S-FSL5	HOYA	FC5
CDGM	H-QK3L	SCHOTT	N-FK5

2019-4-1	Transmittance
2015-4-1	Color Code
2009-9-1	1st edition