

# J-BAF3

$n_d = 1.582670$

$n_e = 1.585648$

$v_d = 46.48$

$v_e = 46.19$

Glass code (d)	583465
Glass code (e)	586462

Spectral l.	Refractive idx
2.058	1.55565
1.970	1.55686
1.530	1.56243
1.129	1.56755
1.064	1.56851
t	1.56932
s	1.57252
A'	1.574752
r	1.576832
C	1.578929
C'	1.579520
He-Ne	1.580073
D	1.582559
d	1.582670
e	1.585648
F	1.591464
F'	1.592198
g	1.598562
h	1.604624
0.389	1.608407
i	1.615393

Coef. disp. form. (pwr ser.)	
A0	2.45448839E+00
A1	-8.67148963E-03
A2	-1.04715240E-04
A3	1.76039752E-02
A4	1.54610243E-04
A5	5.59918259E-05
A6	-5.01297284E-06
A7	3.17557990E-07
A8	0.00000000E+00

Partial dispersion	
F-C	0.012535
F'-C'	0.012678
C-t	0.009605
C-A'	0.004177
d-C	0.003741
e-C	0.006719
g-d	0.015892
g-F	0.007098
h-g	0.006062
i-g	0.016831
C'-t	0.010196
e-C'	0.006128
F'-e	0.006550
i-F'	0.023195

Relative partial dispersion	
C-t/F-C	0.7663
C-A'/F-C	0.3332
d-C/F-C	0.2984
e-C/F-C	0.5360
g-d/F-C	1.2678
g-F/F-C	0.5663
h-g/F-C	0.4836
i-g/F-C	1.3427
C'-t/F'-C'	0.8042
e-C'/F'-C'	0.4834
F'-e/F'-C'	0.5166
i-F'/F'-C'	1.8295

Deviation of relative partial disp.	
$\Delta PdC$	0.0003
$\Delta PgF$	-0.0001

Internal CC (80%/5%)	
369/343	

Color Code (80%/5%)	
375/345	

CCI	
B	-
G	-
R	-

Thermal properties	
CTE(-30,70) [1E-7/°C]	85
CTE(100,300) [1E-7/°C]	98
Tg [°C]	558
At [°C]	612
Ht condct. [W/m·K]	1.097
Sp. heat [kJ/kg·K]	0.723
Ht diffus. [1E-6 m2/sec]	0.554

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	483 (5)
Abrasion hardness	134
Young's mod. [GPa]	76.0
Shear mod. [GPa]	30.6
Poisson's ratio	0.244
Stress optical coef. [1E-5 nm/cm/Pa]	2.54

Internal trans. (10mm)	
$\lambda$ [nm]	$\tau$
280	0.00
290	0.00
300	0.00
310	0.00
320	0.00
330	0.01
340	0.03
350	0.19
360	0.58
370	0.82
380	0.917
390	0.960
400	0.977
420	0.989
440	0.991
460	0.992
480	0.994
500	0.994
550	0.996
600	0.994
650	0.993
700	0.993
800	0.996
900	0.998
1000	0.998
1200	0.999
1400	0.992
1600	0.989
1800	0.968
2000	0.946
2200	0.88
2400	0.83

Specific gravity	
2.74	

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.)	0.6	0.6	0.8	1.0	1.1	1.2	1.3	1.3	1.5	1.7	2.2	2.3	2.9	3.5	4.0	
60 to 80 (ref.)	0.5	0.6	0.8	0.9	1.0	1.1	1.2	1.2	1.4	1.6	2.1	2.2	2.7	3.4	3.8	
40 to 60	0.4	0.5	0.6	0.8	0.9	1.0	1.1	1.1	1.3	1.5	1.9	2.0	2.6	3.2	3.6	
20 to 40	0.3	0.4	0.5	0.7	0.8	0.9	1.0	1.0	1.2	1.4	1.8	1.9	2.4	3.0	3.4	
0 to 20	0.3	0.3	0.5	0.6	0.7	0.9	0.9	0.9	1.1	1.3	1.7	1.8	2.3	2.8	3.2	
-20 to 0	0.3	0.4	0.5	0.6	0.7	0.8	0.9	0.9	1.1	1.3	1.7	1.7	2.2	2.8	3.1	
-40 to -20	0.4	0.4	0.6	0.7	0.8	0.9	0.9	1.0	1.1	1.3	1.7	1.7	2.2	2.7	3.1	
-60 to -40 (ref.)	0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.1	1.2	1.4	1.8	1.8	2.3	2.8	3.1	
-70 to -60 (ref.)	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.3	1.4	1.6	1.9	2.0	2.4	2.9	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	-0.4	-0.3	-0.1	0.0	0.1	0.3	0.3	0.3	0.5	0.8	1.2	1.3	1.9	2.5	3.0	
60 to 80	-0.5	-0.5	-0.3	-0.2	-0.1	0.1	0.1	0.1	0.3	0.5	1.0	1.1	1.6	2.3	2.7	
40 to 60	-0.8	-0.7	-0.6	-0.4	-0.3	-0.2	-0.2	-0.1	0.1	0.3	0.7	0.8	1.3	1.9	2.3	
20 to 40	-1.0	-1.0	-0.8	-0.7	-0.6	-0.5	-0.4	-0.4	-0.2	0.0	0.4	0.5	1.0	1.6	2.0	
0 to 20	-1.3	-1.2	-1.1	-0.9	-0.8	-0.7	-0.7	-0.7	-0.5	-0.3	0.1	0.2	0.7	1.2	1.6	
-20 to 0	-1.5	-1.4	-1.3	-1.2	-1.1	-1.0	-0.9	-0.9	-0.8	-0.6	-0.2	-0.2	0.3	0.9	1.2	
-40 to -20	-1.7	-1.7	-1.6	-1.4	-1.3	-1.2	-1.2	-1.2	-1.0	-0.9	-0.5	-0.5	0.0	0.5	0.9	
-60 to -40	-2.0	-1.9	-1.8	-1.7	-1.6	-1.5	-1.5	-1.4	-1.3	-1.1	-0.8	-0.8	-0.3	0.2	0.5	
-70 to -60	-2.1	-2.1	-2.0	-1.9	-1.8	-1.7	-1.7	-1.6	-1.5	-1.4	-1.0	-1.0	-0.6	-0.1	0.2	

Coef. disp. form. (frac. eq.) (ref.)	
P1	1.15657985E-01
Q1	8.68803305E+01
P2	9.88427417E-03
Q2	5.11274577E-02
P3	3.16699166E-01
Q3	6.63914300E-03

Fitting error of disp. form. $\sigma$ [1E-6]		
	Visible	Infrared
Power ser. eq.	0.6	7.9
Frac. eq. (ref.)	0.8	6.7

Prod. Freq. (A to D)	C
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Similar glass type			
OHARA	S-BAM3	HOYA	-
CDGM	-	SCHOTT	-

2019-4-1	Transmittance
2018-4-1	Prod. Freq.
2015-4-1	Color Code, Prod. Freq.