

# J-BASF8

$n_d = 1.723420$

$n_e = 1.727927$

$v_d = 38.03$

$v_e = 37.75$

Glass code (d)
723380
Glass code (e)
728378

Spectral l.	Refractive idx
2.058	1.68732
1.970	1.68870
1.530	1.69523
1.129	1.70167
1.064	1.70296
t	1.70405
s	1.70849
A'	1.711700
r	1.714733
C	1.717827
C'	1.718705
He-Ne	1.719528
D	1.723254
d	1.723420
e	1.727927
F	1.736849
F'	1.737986
g	1.747938
h	1.757590
0.389	1.763711
i	1.775229

Coef. disp. form. (pwr ser.)	
A0	2.88696022E+00
A1	-1.05560202E-02
A2	-1.02521932E-04
A3	2.80905311E-02
A4	3.99098561E-04
A5	1.15091109E-04
A6	-1.16375905E-05
A7	8.75066077E-07
A8	0.00000000E+00

Partial dispersion	
F-C	0.019022
F'-C'	0.019281
C-t	0.013775
C-A'	0.006127
d-C	0.005593
e-C	0.010100
g-d	0.024518
g-F	0.011089
h-g	0.009652
i-g	0.027291
C'-t	0.014653
e-C'	0.009222
F'-e	0.010059
i-F'	0.037243

Relative partial dispersion	
C-t/F-C	0.7242
C-A'/F-C	0.3221
d-C/F-C	0.2940
e-C/F-C	0.5310
g-d/F-C	1.2889
g-F/F-C	0.5830
h-g/F-C	0.5074
i-g/F-C	1.4347
C'-t/F'-C'	0.7600
e-C'/F'-C'	0.4783
F'-e/F'-C'	0.5217
i-F'/F'-C'	1.9316

Deviation of relative partial disp.	
$\Delta PdC$	-0.0003
$\Delta PgF$	0.0024

Internal CC (80%/5%)	
385/351	

Color Code (80%/5%)	
410/350	

CCI	
B	0.00
G	1.90
R	2.00

Thermal properties	
CTE(-30,70) [1E-7/°C]	69
CTE(100,300) [1E-7/°C]	84
Tg [°C]	600
At [°C]	653
Ht condct. [W/m·K]	0.921
Sp. heat [kJ/kg·K]	0.580
Ht diffus. [1E-6 m2/sec]	0.440

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	519 (5)
Abrasion hardness	121
Young's mod. [GPa]	99.7
Shear mod. [GPa]	39.2
Poisson's ratio	0.271
Stress optical coef. [1E-5 nm/cm/Pa]	2.21

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	0.04
360	0.23
370	0.53
380	0.74
390	0.84
400	0.901
420	0.951
440	0.969
460	0.977
480	0.983
500	0.988
550	0.994
600	0.996
650	0.996
700	0.997
800	0.996
900	0.996
1000	0.997
1200	0.998
1400	0.996
1600	0.991
1800	0.982
2000	0.971
2200	0.934
2400	0.87

Specific gravity	
3.61	

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.)	3.8	3.9	4.1	4.3	4.6	4.8	4.9	4.9	5.3	5.6	6.5	6.6	7.7	8.9	9.7
60 to 80 (ref.)	3.7	3.8	4.0	4.2	4.4	4.6	4.7	4.8	5.1	5.5	6.3	6.4	7.4	8.6	9.4
40 to 60	3.5	3.6	3.9	4.0	4.2	4.5	4.5	4.6	4.9	5.2	6.0	6.1	7.1	8.2	9.0
20 to 40	3.4	3.5	3.7	3.9	4.1	4.3	4.4	4.4	4.7	5.1	5.8	5.9	6.8	7.9	8.6
0 to 20	3.4	3.4	3.6	3.8	4.0	4.2	4.2	4.3	4.6	4.9	5.6	5.7	6.6	7.6	8.2
-20 to 0	3.3	3.4	3.6	3.8	3.9	4.1	4.2	4.2	4.5	4.8	5.5	5.6	6.4	7.3	7.9
-40 to -20	3.4	3.4	3.6	3.8	4.0	4.1	4.2	4.2	4.5	4.8	5.4	5.5	6.3	7.1	7.7
-60 to -40 (ref.)	3.5	3.6	3.8	3.9	4.1	4.2	4.3	4.3	4.6	4.8	5.4	5.5	6.3	7.1	7.6
-70 to -60 (ref.)	3.7	3.8	4.0	4.1	4.2	4.4	4.5	4.5	4.7	5.0	5.6	5.6	6.3	7.1	7.6

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	2.7	2.8	3.1	3.3	3.5	3.7	3.8	3.9	4.2	4.6	5.4	5.5	6.6	7.8	8.6
60 to 80	2.5	2.6	2.9	3.1	3.3	3.5	3.5	3.6	3.9	4.3	5.1	5.2	6.2	7.4	8.2
40 to 60	2.2	2.3	2.6	2.7	2.9	3.1	3.2	3.3	3.6	3.9	4.7	4.8	5.8	6.8	7.6
20 to 40	2.0	2.0	2.2	2.4	2.6	2.8	2.9	2.9	3.2	3.5	4.3	4.4	5.3	6.3	7.0
0 to 20	1.7	1.7	1.9	2.1	2.3	2.5	2.5	2.6	2.8	3.2	3.9	4.0	4.8	5.8	6.4
-20 to 0	1.4	1.4	1.6	1.8	2.0	2.1	2.2	2.2	2.5	2.8	3.4	3.5	4.4	5.2	5.9
-40 to -20	1.1	1.2	1.3	1.5	1.6	1.8	1.9	1.9	2.1	2.4	3.0	3.1	3.9	4.7	5.3
-60 to -40	0.8	0.9	1.0	1.2	1.3	1.5	1.5	1.6	1.8	2.1	2.6	2.7	3.4	4.2	4.7
-70 to -60	0.6	0.6	0.8	0.9	1.1	1.2	1.3	1.3	1.5	1.8	2.3	2.4	3.1	3.8	4.3

Coef. disp. form. (frac. eq.) (ref.)	
P1	1.04773433E-01
Q1	7.92701952E+01
P2	1.39007302E-02
Q2	5.65058214E-02
P3	3.72250971E-01
Q3	7.25055966E-03

Fitting error of disp. form. $\sigma$ [1E-6]		
	Visible	Infrared
Power ser. eq.	0.6	5.4
Frac. eq. (ref.)	2.0	10.1

Prod. Freq. (A to D)	C
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Similar glass type			
OHARA	S-BAH28	HOYA	BAFD8
CDGM	H-ZBaF21	SCHOTT	-

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