# J-BASF8

$n_d$ = 1.723420 $n_e$ = 1.727927

$\nu_d$ = 38.03 $\nu_e$ = 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 |

| 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. | |
|---|---|
| ΔPdC | −0.0003 |
| ΔPgF | 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/℃] | 69 |
| CTE(100,300) [1E-7/℃] | 84 |
| Tg [℃] | 600 |
| At [℃] | 653 |
| StP [℃] | 561 |
| AP [℃] | 599 |
| SP [℃] | 744 |
| Ht cndct. [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) | |
|---|---|
| λ [nm] | τ |
| 280 | – |
| 290 | – |
| 300 | – |
| 310 | – |
| 320 | – |
| 330 | – |
| 340 | – |
| 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 |

| 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 |

**Relative Δn/ΔT [1E-6/℃]**

| Temp. [℃] | 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 Δn/ΔT [1E-6/℃]**

| Temp. [℃] | 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. σ [1E-6] | | |
|---|---|---|
| | Visible | Infrared |
| Power ser. eq. | 0.6 | 5.4 |
| Frac. eq. (ref.) | 2.0 | 10.1 |

| Prod. Freq. (A to D) | C |
|---|---|

| Similar glass type | | | |
|---|---|---|---|
| OHARA | S-BAH28 | HOYA | BAFD8 |
| CDGM | H-ZBaF21 | SCHOTT | – |

| | |
|---|---|
| 2022-7-1 | StP, AP, SP |
| 2019-4-1 | Transmittance |
| 2015-4-1 | Color Code |

HIKARI GLASS CO., LTD.