# J-LASF02

$n_d$ = 1.799520 $n_e$ = 1.804034

$\nu_d$ = 42.09 $\nu_e$ = 41.83

| Glass code (d) |
|---|
| 800421 |
| Glass code (e) |
| 804418 |

| Spectral l. | Refractive idx |
|---|---|
| 2.058 | 1.76084 |
| 1.970 | 1.76245 |
| 1.530 | 1.76995 |
| 1.129 | 1.77706 |
| 1.064 | 1.77843 |
| t | 1.77960 |
| s | 1.78427 |
| A' | 1.787593 |
| r | 1.790708 |
| C | 1.793865 |
| C' | 1.794756 |
| He-Ne | 1.795591 |
| D | 1.799353 |
| d | 1.799520 |
| e | 1.804034 |
| F | 1.812862 |
| F' | 1.813976 |
| g | 1.823628 |
| h | 1.832793 |
| 0.389 | 1.838492 |
| i | 1.848944 |

| Coef. disp. form. (pwr ser.) | |
|---|---|
| A0 | 3.15037829E+00 |
| A1 | -1.26701101E-02 |
| A2 | -1.84342080E-04 |
| A3 | 3.01788791E-02 |
| A4 | 4.35495344E-04 |
| A5 | 5.91055881E-05 |
| A6 | -3.81755339E-06 |
| A7 | 2.51546253E-07 |
| A8 | 0.00000000E+00 |

| Partial dispersion | |
|---|---|
| F-C | 0.018997 |
| F'-C' | 0.019220 |
| C-t | 0.014266 |
| C-A' | 0.006272 |
| d-C | 0.005655 |
| e-C | 0.010169 |
| g-d | 0.024108 |
| g-F | 0.010766 |
| h-g | 0.009165 |
| i-g | 0.025316 |
| C'-t | 0.015157 |
| e-C' | 0.009278 |
| F'-e | 0.009942 |
| i-F' | 0.034968 |

| Relative partial dispersion | |
|---|---|
| C-t／F-C | 0.7510 |
| C-A'／F-C | 0.3302 |
| d-C／F-C | 0.2977 |
| e-C／F-C | 0.5353 |
| g-d／F-C | 1.2690 |
| g-F／F-C | 0.5667 |
| h-g／F-C | 0.4824 |
| i-g／F-C | 1.3326 |
| C'-t／F'-C' | 0.7886 |
| e-C'／F'-C' | 0.4827 |
| F'-e／F'-C' | 0.5173 |
| i-F'／F'-C' | 1.8194 |

| Deviation of relative partial disp. | |
|---|---|
| ΔPdC | 0.0015 |
| ΔPgF | -0.0070 |

| Internal CC (80%/5%) |
|---|
| 369/333 |

| Color Code (80%/5%) |
|---|
| 400/335 |

| CCI | |
|---|---|
| B | 0.00 |
| G | 1.02 |
| R | 1.07 |

| Thermal properties | |
|---|---|
| CTE(-30,70) [1E-7/℃] | 53 |
| CTE(100,300) [1E-7/℃] | 71 |
| Tg [℃] | 598 |
| At [℃] | 630 |
| Ht cndct. [W/m･K] | 0.850 |
| Sp. heat [kJ/kg･K] | 0.518 |
| Ht diffus. [1E-6 m2/sec] | 0.363 |

| Chemical properties [class] | |
|---|---|
| Acid res. (surface) | 4 |
| Alkaline detergent res. | 2 |
| Climate resistance | 1 |
| Water res. (powder) | 2 |
| Acid res. (powder) | 4 |

| Mechanical properties | |
|---|---|
| Knoop hardness | 586 (6) |
| Abrasion hardness | 64 |
| Young's mod. [GPa] | 109.1 |
| Shear mod. [GPa] | 41.6 |
| Poisson's ratio | 0.310 |
| Stress optical coef. [1E-5 nm/cm／Pa] | 2.23 |

| Internal trans. (10mm) | |
|---|---|
| λ [nm] | τ |
| 280 | 0.00 |
| 290 | 0.00 |
| 300 | 0.00 |
| 310 | 0.00 |
| 320 | 0.00 |
| 330 | 0.02 |
| 340 | 0.16 |
| 350 | 0.42 |
| 360 | 0.66 |
| 370 | 0.81 |
| 380 | 0.89 |
| 390 | 0.927 |
| 400 | 0.950 |
| 420 | 0.972 |
| 440 | 0.982 |
| 460 | 0.987 |
| 480 | 0.992 |
| 500 | 0.995 |
| 550 | 0.998 |
| 600 | 0.999 |
| 650 | 0.998 |
| 700 | 0.999 |
| 800 | 0.998 |
| 900 | 0.996 |
| 1000 | 0.996 |
| 1200 | 0.997 |
| 1400 | 0.995 |
| 1600 | 0.990 |
| 1800 | 0.981 |
| 2000 | 0.964 |
| 2200 | 0.914 |
| 2400 | 0.72 |

| Specific gravity |
|---|
| 4.51 |

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.) | 7.9 | 8.0 | 8.2 | 8.5 | 8.7 | 9.0 | 9.1 | 9.1 | 9.5 | 9.8 | 10.7 | 10.8 | 11.8 | 12.8 | 13.4 |
| 60 to 80 (ref.) | 7.7 | 7.8 | 8.1 | 8.3 | 8.5 | 8.8 | 8.8 | 8.9 | 9.2 | 9.6 | 10.4 | 10.5 | 11.5 | 12.5 | 13.1 |
| 40 to 60 | 7.5 | 7.6 | 7.8 | 8.1 | 8.3 | 8.5 | 8.6 | 8.7 | 9.0 | 9.3 | 10.1 | 10.2 | 11.1 | 12.1 | 12.7 |
| 20 to 40 | 7.3 | 7.4 | 7.6 | 7.9 | 8.1 | 8.3 | 8.4 | 8.4 | 8.7 | 9.1 | 9.8 | 9.9 | 10.8 | 11.7 | 12.3 |
| 0 to 20 | 7.2 | 7.2 | 7.5 | 7.7 | 7.9 | 8.1 | 8.2 | 8.2 | 8.5 | 8.9 | 9.6 | 9.7 | 10.5 | 11.4 | 12.0 |
| -20 to 0 | 7.1 | 7.2 | 7.4 | 7.6 | 7.8 | 8.0 | 8.0 | 8.1 | 8.4 | 8.7 | 9.4 | 9.5 | 10.3 | 11.2 | 11.7 |
| -40 to -20 | 7.1 | 7.1 | 7.4 | 7.5 | 7.7 | 7.9 | 8.0 | 8.0 | 8.3 | 8.6 | 9.3 | 9.4 | 10.2 | 11.0 | 11.5 |
| -60 to -40 (ref.) | 7.2 | 7.2 | 7.4 | 7.6 | 7.8 | 8.0 | 8.0 | 8.1 | 8.3 | 8.7 | 9.3 | 9.4 | 10.1 | 10.9 | 11.4 |
| -70 to -60 (ref.) | 7.3 | 7.4 | 7.6 | 7.7 | 7.9 | 8.1 | 8.2 | 8.2 | 8.5 | 8.8 | 9.4 | 9.5 | 10.2 | 10.9 | 11.4 |

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 | 6.8 | 6.9 | 7.2 | 7.4 | 7.6 | 7.9 | 7.9 | 8.0 | 8.3 | 8.7 | 9.5 | 9.6 | 10.6 | 11.6 | 12.3 |
| 60 to 80 | 6.5 | 6.6 | 6.9 | 7.1 | 7.3 | 7.6 | 7.6 | 7.7 | 8.0 | 8.4 | 9.2 | 9.3 | 10.2 | 11.2 | 11.8 |
| 40 to 60 | 6.2 | 6.2 | 6.5 | 6.7 | 6.9 | 7.1 | 7.2 | 7.3 | 7.6 | 7.9 | 8.7 | 8.8 | 9.7 | 10.6 | 11.2 |
| 20 to 40 | 5.8 | 5.9 | 6.1 | 6.3 | 6.5 | 6.7 | 6.8 | 6.9 | 7.2 | 7.5 | 8.2 | 8.3 | 9.2 | 10.1 | 10.7 |
| 0 to 20 | 5.4 | 5.5 | 5.7 | 5.9 | 6.1 | 6.3 | 6.4 | 6.4 | 6.7 | 7.1 | 7.8 | 7.8 | 8.7 | 9.5 | 10.1 |
| -20 to 0 | 5.1 | 5.1 | 5.3 | 5.5 | 5.7 | 5.9 | 6.0 | 6.0 | 6.3 | 6.6 | 7.3 | 7.4 | 8.2 | 9.0 | 9.5 |
| -40 to -20 | 4.7 | 4.7 | 5.0 | 5.1 | 5.3 | 5.5 | 5.6 | 5.6 | 5.9 | 6.2 | 6.8 | 6.9 | 7.7 | 8.4 | 8.9 |
| -60 to -40 | 4.3 | 4.4 | 4.6 | 4.7 | 4.9 | 5.1 | 5.2 | 5.2 | 5.4 | 5.7 | 6.3 | 6.4 | 7.1 | 7.9 | 8.4 |
| -70 to -60 | 4.0 | 4.1 | 4.3 | 4.4 | 4.6 | 4.8 | 4.8 | 4.9 | 5.1 | 5.4 | 6.0 | 6.1 | 6.8 | 7.5 | 7.9 |

| Coef. disp. form. (frac. eq. )(ref.) | |
|---|---|
| P1 | 1.06784810E-01 |
| Q1 | 7.32229118E+01 |
| P2 | 2.04998014E-02 |
| Q2 | 4.06036318E-02 |
| P3 | 3.97089133E-01 |
| Q3 | 6.38000144E-03 |

| Fitting error of disp. form. σ [1E-6] | | |
|---|---|---|
| | Visible | Infrared |
| Power ser. eq. | 0.6 | 9.5 |
| Frac. eq. (ref.) | 0.8 | 7.7 |

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

| Similar glass type | | | |
|---|---|---|---|
| OHARA | S-LAH52 | HOYA | NBFD12 |
| CDGM | H-LaF54 | SCHOTT | - |

| | |
|---|---|
| 2019-4-1 | Transmittance |
| 2015-4-1 | Color Code, Prod. Freq, Similar glass type |
| 2009-9-1 | 1st edition |

HIKARI GLASS CO., LTD.