

# J-LASKH2

$n_d = 1.755000$

$n_e = 1.758438$

$v_d = 52.34$

$v_e = 52.10$

|                |
|----------------|
| Glass code (d) |
| 755523         |
| Glass code (e) |
| 758521         |

| Spectral l. | Refractive idx |
|-------------|----------------|
| 2.058       | 1.72014        |
| 1.970       | 1.72189        |
| 1.530       | 1.72981        |
| 1.129       | 1.73670        |
| 1.064       | 1.73794        |
| t           | 1.73898        |
| s           | 1.74294        |
| A'          | 1.745658       |
| r           | 1.748146       |
| C           | 1.750628       |
| C'          | 1.751323       |
| He-Ne       | 1.751971       |
| D           | 1.754872       |
| d           | 1.755000       |
| e           | 1.758438       |
| F           | 1.765054       |
| F'          | 1.765879       |
| g           | 1.772953       |
| h           | 1.779538       |
| 0.389       | 1.783566       |
| i           | 1.790817       |

| Coef. disp. form. (pwr ser.) |                 |
|------------------------------|-----------------|
| A0                           | 3.01618042E+00  |
| A1                           | -1.39280117E-02 |
| A2                           | -2.04284446E-04 |
| A3                           | 2.27027519E-02  |
| A4                           | 3.17846393E-04  |
| A5                           | 1.01400049E-05  |
| A6                           | 3.63521536E-08  |
| A7                           | 0.00000000E+00  |
| A8                           | 0.00000000E+00  |

| Partial dispersion |          |
|--------------------|----------|
| F-C                | 0.014426 |
| F'-C'              | 0.014556 |
| C-t                | 0.011653 |
| C-A'               | 0.004970 |
| d-C                | 0.004372 |
| e-C                | 0.007810 |
| g-d                | 0.017953 |
| g-F                | 0.007899 |
| h-g                | 0.006585 |
| i-g                | 0.017864 |
| C'-t               | 0.012348 |
| e-C'               | 0.007115 |
| F'-e               | 0.007441 |
| i-F'               | 0.024938 |

| Relative partial dispersion |        |
|-----------------------------|--------|
| C-t/F-C                     | 0.8078 |
| C-A'/F-C                    | 0.3445 |
| d-C/F-C                     | 0.3031 |
| e-C/F-C                     | 0.5414 |
| g-d/F-C                     | 1.2445 |
| g-F/F-C                     | 0.5476 |
| h-g/F-C                     | 0.4565 |
| i-g/F-C                     | 1.2383 |
| C'-t/F'-C'                  | 0.8483 |
| e-C'/F'-C'                  | 0.4888 |
| F'-e/F'-C'                  | 0.5112 |
| i-F'/F'-C'                  | 1.7132 |

| Deviation of relative partial disp. |         |
|-------------------------------------|---------|
| $\Delta PdC$                        | 0.0022  |
| $\Delta PgF$                        | -0.0090 |

| Internal CC (80%/5%) |  |
|----------------------|--|
| 344/274              |  |

| Color Code (80%/5%) |  |
|---------------------|--|
| 370/275             |  |

| CCI |      |
|-----|------|
| B   | 0.00 |
| G   | 0.35 |
| R   | 0.35 |

| Thermal properties       |       |
|--------------------------|-------|
| CTE(-30,70) [1E-7/°C]    | 61    |
| CTE(100,300) [1E-7/°C]   | 72    |
| Tg [°C]                  | 670   |
| At [°C]                  | 697   |
| Ht condct. [W/m·K]       | 0.823 |
| Sp. heat [kJ/kg·K]       | 0.510 |
| Ht diffus. [1E-6 m2/sec] | 0.377 |

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

| Mechanical properties                |         |
|--------------------------------------|---------|
| Knoop hardness                       | 678 (7) |
| Abrasion hardness                    | 62      |
| Young's mod. [GPa]                   | 118.8   |
| Shear mod. [GPa]                     | 45.8    |
| Poisson's ratio                      | 0.297   |
| Stress optical coef. [1E-5 nm/cm/Pa] | 1.60    |

| Internal trans. (10mm) |        |
|------------------------|--------|
| $\lambda$ [nm]         | $\tau$ |
| 280                    | 0.08   |
| 290                    | 0.16   |
| 300                    | 0.27   |
| 310                    | 0.37   |
| 320                    | 0.52   |
| 330                    | 0.66   |
| 340                    | 0.76   |
| 350                    | 0.84   |
| 360                    | 0.900  |
| 370                    | 0.938  |
| 380                    | 0.961  |
| 390                    | 0.974  |
| 400                    | 0.983  |
| 420                    | 0.990  |
| 440                    | 0.993  |
| 460                    | 0.995  |
| 480                    | 0.997  |
| 500                    | 0.998  |
| 550                    | 0.999  |
| 600                    | 0.999  |
| 650                    | 0.999  |
| 700                    | 0.999  |
| 800                    | 0.998  |
| 900                    | 0.997  |
| 1000                   | 0.997  |
| 1200                   | 0.998  |
| 1400                   | 0.993  |
| 1600                   | 0.988  |
| 1800                   | 0.974  |
| 2000                   | 0.947  |
| 2200                   | 0.86   |
| 2400                   | 0.61   |

| Specific gravity |  |
|------------------|--|
| 4.29             |  |

| 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.)                          | 3.9   | 3.9 | 4.1 | 4.3 | 4.4 | 4.5 | 4.6 | 4.6   | 4.6 | 4.8 | 5.0 | 5.5 | 5.6 | 6.1 | 6.7   | 7.0 |
| 60 to 80 (ref.)                          | 3.8   | 3.8 | 4.0 | 4.1 | 4.3 | 4.4 | 4.4 | 4.4   | 4.5 | 4.7 | 4.9 | 5.3 | 5.4 | 6.0 | 6.5   | 6.8 |
| 40 to 60                                 | 3.6   | 3.7 | 3.8 | 4.0 | 4.1 | 4.2 | 4.3 | 4.3   | 4.5 | 4.7 | 5.1 | 5.2 | 5.7 | 6.2 | 6.5   | 6.5 |
| 20 to 40                                 | 3.5   | 3.5 | 3.7 | 3.8 | 4.0 | 4.1 | 4.1 | 4.2   | 4.3 | 4.5 | 5.0 | 5.0 | 5.5 | 6.0 | 6.3   | 6.3 |
| 0 to 20                                  | 3.4   | 3.5 | 3.6 | 3.8 | 3.9 | 4.0 | 4.0 | 4.1   | 4.2 | 4.4 | 4.8 | 4.9 | 5.4 | 5.8 | 6.1   | 6.1 |
| -20 to 0                                 | 3.4   | 3.4 | 3.6 | 3.7 | 3.8 | 4.0 | 4.0 | 4.0   | 4.2 | 4.4 | 4.7 | 4.8 | 5.3 | 5.7 | 5.9   | 5.9 |
| -40 to -20                               | 3.5   | 3.5 | 3.6 | 3.8 | 3.9 | 4.0 | 4.0 | 4.1   | 4.2 | 4.4 | 4.7 | 4.8 | 5.2 | 5.7 | 5.9   | 5.9 |
| -60 to -40 (ref.)                        | 3.6   | 3.6 | 3.8 | 3.9 | 4.0 | 4.1 | 4.2 | 4.2   | 4.3 | 4.5 | 4.8 | 4.9 | 5.3 | 5.7 | 5.9   | 5.9 |
| -70 to -60 (ref.)                        | 3.8   | 3.8 | 4.0 | 4.1 | 4.2 | 4.3 | 4.3 | 4.4   | 4.5 | 4.7 | 5.0 | 5.0 | 5.5 | 5.8 | 6.0   | 6.0 |

| 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                                 | 2.8   | 2.9 | 3.0 | 3.2 | 3.3 | 3.5 | 3.5 | 3.5   | 3.7 | 3.9 | 4.4 | 4.5 | 5.0 | 5.6 | 5.8   | 5.8 |
| 60 to 80                                 | 2.6   | 2.6 | 2.8 | 2.9 | 3.1 | 3.2 | 3.3 | 3.3   | 3.5 | 3.7 | 4.1 | 4.2 | 4.7 | 5.2 | 5.5   | 5.5 |
| 40 to 60                                 | 2.3   | 2.3 | 2.5 | 2.6 | 2.8 | 2.9 | 2.9 | 3.0   | 3.1 | 3.3 | 3.8 | 3.8 | 4.3 | 4.8 | 5.1   | 5.1 |
| 20 to 40                                 | 2.0   | 2.0 | 2.2 | 2.3 | 2.5 | 2.6 | 2.6 | 2.7   | 2.8 | 3.0 | 3.4 | 3.5 | 4.0 | 4.4 | 4.7   | 4.7 |
| 0 to 20                                  | 1.7   | 1.7 | 1.9 | 2.0 | 2.1 | 2.3 | 2.3 | 2.3   | 2.5 | 2.7 | 3.0 | 3.1 | 3.6 | 4.0 | 4.2   | 4.2 |
| -20 to 0                                 | 1.4   | 1.5 | 1.6 | 1.7 | 1.8 | 1.9 | 2.0 | 2.0   | 2.2 | 2.3 | 2.7 | 2.7 | 3.2 | 3.6 | 3.8   | 3.8 |
| -40 to -20                               | 1.1   | 1.2 | 1.3 | 1.4 | 1.5 | 1.6 | 1.7 | 1.7   | 1.8 | 2.0 | 2.3 | 2.4 | 2.8 | 3.2 | 3.4   | 3.4 |
| -60 to -40                               | 0.9   | 0.9 | 1.0 | 1.1 | 1.2 | 1.3 | 1.3 | 1.4   | 1.5 | 1.6 | 2.0 | 2.0 | 2.4 | 2.8 | 3.0   | 3.0 |
| -70 to -60                               | 0.6   | 0.6 | 0.8 | 0.9 | 1.0 | 1.1 | 1.1 | 1.1   | 1.2 | 1.4 | 1.7 | 1.7 | 2.1 | 2.5 | 2.7   | 2.7 |

| Coef. disp. form. (frac. eq.) (ref.) |                |
|--------------------------------------|----------------|
| P1                                   | 1.09833774E-01 |
| Q1                                   | 6.56037326E+01 |
| P2                                   | 4.70337592E-02 |
| Q2                                   | 2.11653374E-02 |
| P3                                   | 3.54937207E-01 |
| Q3                                   | 4.78614953E-03 |

| Fitting error of disp. form. $\sigma$ [1E-6] |         |          |
|--|---------|----------|
|  | Visible | Infrared |
| Power ser. eq.                               | 0.5     | 6.7      |
| Frac. eq. (ref.)                             | 0.6     | 6.7      |

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

| Similar glass type |                 |        |          |
|--------------------|-----------------|--------|----------|
| OHARA              | S-YGH51,S-LAH97 | HOYA   | TAC6     |
| CDGM               | H-LaK53A        | SCHOTT | N-LAK33B |

|          |  |
|----------|--|
| 2019-4-1 | Transmittance                              |
| 2018-4-1 | Prod. Freq. Similar glass type             |
| 2015-4-1 | Color Code, Prod. Freq. Similar glass type |