

|                             |                 |               |                              |
|-----------------------------|-----------------|---------------|------------------------------|
| <b>H-LaK5</b> <b>678555</b> | $n_d = 1.67790$ | $v_d = 55.52$ | $n_F - n_C = 0.012211$       |
|                             | $n_e = 1.68081$ | $v_e = 55.26$ | $n_{F'} - n_{C'} = 0.012319$ |

| Refractive Indices |                      |             |
|--------------------|----------------------|-------------|
|                    | $\lambda(\text{nm})$ | $n_\lambda$ |
| $n_{2325}$         | 2325.42              | 1.64374     |
| $n_{1970}$         | 1970.09              | 1.64985     |
| $n_{1530}$         | 1529.58              | 1.65652     |
| $n_{1129}$         | 1128.64              | 1.66241     |
| $n_t$              | 1013.98              | 1.66433     |
| $n_s$              | 852.11               | 1.66769     |
| $n_{A'}$           | 768.19               | 1.66999     |
| $n_r$              | 706.52               | 1.67210     |
| $n_C$              | 656.27               | 1.67420     |
| $n_{C'}$           | 643.85               | 1.67479     |
| $n_{\text{He-Ne}}$ | 632.80               | 1.67534     |
| $n_D$              | 589.29               | 1.67779     |
| $n_d$              | 587.56               | 1.67790     |
| $n_e$              | 546.07               | 1.68081     |
| $n_F$              | 486.13               | 1.68641     |
| $n_{F'}$           | 479.99               | 1.68710     |
| $n_g$              | 435.84               | 1.69306     |
| $n_h$              | 404.66               | 1.69860     |
| $n_i$              | 365.01               | 1.70808     |

| Constants of Dispersion Formula |                 |
|---------------------------------|-----------------|
| $A_0$                           | 2.76557263E+00  |
| $A_1$                           | -1.23637271E-02 |
| $A_2$                           | 1.69982158E-02  |
| $A_3$                           | 7.22126985E-04  |
| $A_4$                           | -6.22373337E-05 |
| $A_5$                           | 3.67624447E-06  |

| Relative Partial Dispersions |        |             |        |
|------------------------------|--------|-------------|--------|
| $P_{d,C}$                    | 0.3030 | $P'_{d,C'}$ | 0.2526 |
| $P_{e,d}$                    | 0.2383 | $P'_{e,d}$  | 0.2364 |
| $P_{g,F}$                    | 0.5446 | $P'_{g,F'}$ | 0.4842 |

| Range of Temperature (°C) | Temperature Coefficients of Refractive Index  |     |       |     |     |     |     |
|---------------------------|---|-----|-------|-----|-----|-----|-----|
|                           | dn/dt relative ( $10^{-6} / ^\circ\text{C}$ ) |     |       |     |     |     |     |
|                           | t   | C'  | He-Ne | D   | e   | F'  | g   |
| -40 ~ -20                 | -0.2  | 0.3 | 0.3   | 0.4 | 0.5 | 0.9 | 1.2 |
| -20 ~ 0                   | -0.3  | 0.1 | 0.2   | 0.3 | 0.5 | 0.8 | 1.2 |
| 0 ~ 20                    | -0.3  | 0.1 | 0.1   | 0.3 | 0.4 | 0.8 | 1.2 |
| 20 ~ 40                   | -0.4  | 0.1 | 0.1   | 0.3 | 0.4 | 0.8 | 1.2 |
| 40 ~ 60                   | -0.4  | 0.2 | 0.2   | 0.3 | 0.5 | 0.9 | 1.3 |
| 60 ~ 80                   | -0.3  | 0.2 | 0.3   | 0.4 | 0.6 | 1.0 | 1.4 |

| Chemical Properties (grade) |   |
|-----------------------------|---|
| RC(S)                       | 3 |
| RA(S)                       | 3 |
| $D_W$                       | 4 |
| $D_A$                       | 4 |
| $R_{OH}(S)$                 | 2 |
| RP(S)                       | 5 |

| Thermal Properties                                 |     |
|--|-----|
| $T_g(^\circ\text{C})$                              | 616 |
| $T_s(^\circ\text{C})$                              | 647 |
| $T_{10}^{14.5}(^\circ\text{C})$                    | 570 |
| $T_{10}^{13}(^\circ\text{C})$                      | 602 |
| $\alpha_{-50/80^\circ\text{C}}(10^{-7}/\text{K})$  | 78  |
| $\alpha_{100/300^\circ\text{C}}(10^{-7}/\text{K})$ | 94  |

| Mechanical Properties                  |       |
|--|-------|
| HK( $10^7\text{Pa}$ )                  | 551   |
| $F_A$                                  | 165   |
| $E(10^7\text{Pa})$                     | 9458  |
| $G(10^7\text{Pa})$                     | 3721  |
| $\mu$                                  | 0.271 |
| $B(\text{nm}/\text{cm}/10^5\text{Pa})$ | 1.600 |

| Density                      |      |
|------------------------------|------|
| $\rho(\text{g}/\text{cm}^3)$ | 3.79 |

| Deviation of Relative Partial Dispersions |         |
|---|---------|
| $\Delta P_{F,e}$                          | -0.0009 |
| $\Delta P_{g,F}$                          | -0.0067 |
| $\Delta P_{C,t}$                          | -0.0008 |
| $\Delta P_{C,s}$                          | -0.0005 |

| Internal Transmittance |                   |                      |
|------------------------|-------------------|----------------------|
| $\lambda(\text{nm})$   | $\tau_5\text{mm}$ | $\tau_{10}\text{mm}$ |
| 2400                   | 0.852             | 0.728                |
| 2200                   | 0.962             | 0.926                |
| 2000                   | 0.994             | 0.988                |
| 1800                   | 0.999             | 0.998                |
| 1600                   | 0.999             | 0.998                |
| 1400                   | 0.999             | 0.998                |
| 1200                   | 0.999             | 0.998                |
| 1060                   | 0.999             | 0.998                |
| 1000                   | 0.999             | 0.998                |
| 900                    | 0.999             | 0.998                |
| 850                    | 0.999             | 0.998                |
| 800                    | 0.999             | 0.998                |
| 750                    | 0.999             | 0.998                |
| 700                    | 0.999             | 0.998                |
| 650                    | 0.999             | 0.998                |
| 600                    | 0.999             | 0.998                |
| 550                    | 0.999             | 0.998                |
| 500                    | 0.998             | 0.995                |
| 480                    | 0.997             | 0.992                |
| 460                    | 0.996             | 0.988                |
| 440                    | 0.994             | 0.984                |
| 420                    | 0.992             | 0.980                |
| 400                    | 0.990             | 0.975                |
| 390                    | 0.987             | 0.969                |
| 380                    | 0.982             | 0.959                |
| 370                    | 0.967             | 0.937                |
| 360                    | 0.950             | 0.894                |
| 350                    | 0.907             | 0.827                |
| 340                    | 0.853             | 0.734                |
| 330                    | 0.778             | 0.613                |
| 320                    | 0.684             | 0.477                |
| 310                    | 0.572             | 0.341                |
| 300                    | 0.456             | 0.221                |
| 290                    | 0.348             | 0.132                |
| 280                    | 0.248             | 0.069                |

| Coloration Code                        |         |
|--|---------|
| $\lambda_{80}(\lambda_{70})/\lambda_5$ | 360/275 |

| Coloration of Internal Transmittance |         |
|--------------------------------------|---------|
| $\lambda\tau_{80}/\lambda\tau_5$     | 341/270 |