

|                                                               |                |                                      |                                             |         |                           |         |                                       |                            |                                              |       |
|---------------------------------------------------------------|----------------|--------------------------------------|---------------------------------------------|---------|---------------------------|---------|---------------------------------------|----------------------------|----------------------------------------------|-------|
| D-ZK3A-25                                                     |                |                                      | 588610                                      |         | n <sub>d</sub> = 1.588280 |         | v <sub>d</sub> = 61.01                |                            | n <sub>F</sub> - n <sub>C</sub> = 0.009642   |       |
|                                                               |                |                                      |                                             |         | n <sub>e</sub> = 1.590580 |         | v <sub>e</sub> = 60.80                |                            | n <sub>F'</sub> - n <sub>C'</sub> = 0.009713 |       |
|                                                               |                |                                      |                                             |         |                           |         |                                       |                            |                                              |       |
| 折 射 率    Refractive Index**                                   |                |                                      | 相 对 部 分 色 散    Relative Partial Dispersions |         |                           |         | 内 部 透 过 率    Internal Transmittance τ |                            |                                              |       |
|                                                               | λ (nm)         |                                      | P <sub>s,t</sub>                            | 0.3047  | P' <sub>s,t</sub>         | 0.3025  | λ (nm)                                | τ (5mm)                    | τ (10mm)                                     |       |
| n <sub>2325.42</sub>                                          | 2325.42        | 1.556007                             | P <sub>C,s</sub>                            | 0.5565  | P' <sub>C',s</sub>        | 0.6012  | 2400                                  | 0.812                      | 0.659                                        |       |
| n <sub>1970.09</sub>                                          | 1970.09        | 1.562659                             | P <sub>d,C</sub>                            | 0.3068  | P' <sub>d,C'</sub>        | 0.2558  | 2200                                  | 0.917                      | 0.840                                        |       |
| n <sub>1529.58</sub>                                          | 1529.58        | 1.569562                             | P <sub>e,d</sub>                            | 0.2385  | P' <sub>e,d</sub>         | 0.2368  | 2000                                  | 0.977                      | 0.955                                        |       |
| n <sub>1060.0</sub>                                           | 1060.0         | 1.576291                             | P <sub>g,F</sub>                            | 0.5372  | P' <sub>g,F'</sub>        | 0.4773  | 1800                                  | 0.990                      | 0.980                                        |       |
| n <sub>t</sub>                                                | 1013.98        | 1.577018                             | P <sub>i,h</sub>                            | 0.7542  | P' <sub>i,h</sub>         | 0.7487  | 1600                                  | 0.995                      | 0.990                                        |       |
| n <sub>s</sub>                                                | 852.11         | 1.579956                             |                                             |         |                           |         | 1400                                  | 0.991                      | 0.981                                        |       |
| n <sub>r</sub>                                                | 706.52         | 1.583619                             | 异常色散    Abnormal Dispersions                |         |                           |         | 1200                                  | 0.999                      | 0.998                                        |       |
| n <sub>C</sub>                                                | 656.27         | 1.585322                             | ΔP <sub>C,t</sub>                           | 0.0275  | ΔP <sub>C,s</sub>         | 0.0105  | 1060                                  | 0.999                      | 0.998                                        |       |
| n <sub>C'</sub>                                               | 643.85         | 1.585795                             | ΔP <sub>F,e</sub>                           | -0.0017 | ΔP <sub>g,F</sub>         | -0.0046 | 1000                                  | 0.999                      | 0.998                                        |       |
| n <sub>He-Ne</sub>                                            | 632.8          | 1.586236                             |                                             |         |                           |         | 950                                   | 0.999                      | 0.998                                        |       |
| n <sub>D</sub>                                                | 589.29         | 1.588194                             |                                             |         |                           |         | 900                                   | 0.999                      | 0.998                                        |       |
| n <sub>d</sub>                                                | 587.56         | 1.588280                             | 着色度    Color Code                           |         |                           |         | 850                                   | 0.999                      | 0.998                                        |       |
| n <sub>e</sub>                                                | 546.07         | 1.590580                             | λ <sub>80</sub> /λ <sub>5</sub>             |         | 340/285                   |         | 800                                   | 0.999                      | 0.998                                        |       |
| n <sub>F</sub>                                                | 486.13         | 1.594964                             | λ <sub>70</sub> /λ <sub>5</sub>             |         |                           |         | 700                                   | 0.999                      | 0.998                                        |       |
| n <sub>F'</sub>                                               | 479.99         | 1.595508                             |                                             |         |                           |         | 650                                   | 0.999                      | 0.998                                        |       |
| n <sub>g</sub>                                                | 435.83         | 1.600144                             |                                             |         |                           |         | 600                                   | 0.999                      | 0.998                                        |       |
| n <sub>h</sub>                                                | 404.66         | 1.604428                             |                                             |         |                           |         | 550                                   | 0.999                      | 0.997                                        |       |
| n <sub>i</sub>                                                | 365.01         | 1.611700                             | 热性质    Thermal Properties                   |         |                           |         | 500                                   | 0.998                      | 0.996                                        |       |
| n <sub>313.18</sub>                                           | 313.18         | 1.626397                             | T <sub>g</sub> (°C)                         |         | 538                       |         | 480                                   | 0.998                      | 0.996                                        |       |
| n <sub>302.15</sub>                                           | 302.15         | 1.630730                             | T <sub>s</sub> (°C)                         |         | 571                       |         | 460                                   | 0.998                      | 0.996                                        |       |
|                                                               |                |                                      | T <sub>10</sub> <sup>14.5</sup> (°C)        |         | 484                       |         | 440                                   | 0.997                      | 0.995                                        |       |
|                                                               |                |                                      | T <sub>10</sub> <sup>13</sup> (°C)          |         | 516                       |         | 420                                   | 0.997                      | 0.995                                        |       |
| 色散公式常数    Constants of Dispersion Formula                     |                |                                      | T <sub>10</sub> <sup>7.6</sup> (°C)         |         | 641                       |         | 400                                   | 0.997                      | 0.994                                        |       |
| K <sub>1</sub>                                                | 6.00125686E-01 |                                      | α <sub>30/70℃</sub> (10 <sup>-7</sup> /K)   |         | 59                        |         | 390                                   | 0.995                      | 0.990                                        |       |
| L <sub>1</sub>                                                | 1.50823603E-03 |                                      | α <sub>100/300℃</sub> (10 <sup>-7</sup> /K) |         | 79                        |         | 380                                   | 0.993                      | 0.986                                        |       |
| K <sub>2</sub>                                                | 8.85665979E-01 |                                      | λ[W/(m·K)]                                  |         |                           |         | 370                                   | 0.989                      | 0.978                                        |       |
| L <sub>2</sub>                                                | 1.42989412E-02 |                                      |                                             |         |                           |         | 360                                   | 0.981                      | 0.962                                        |       |
| K <sub>3</sub>                                                | 1.12367562E+00 |                                      |                                             |         |                           |         | 350                                   | 0.964                      | 0.930                                        |       |
| L <sub>3</sub>                                                | 9.58973607E+01 |                                      | 化学性质    Chemical Properties                 |         |                           |         | 340                                   | 0.935                      | 0.874                                        |       |
|                                                               |                |                                      |                                             |         | Grade                     |         | 330                                   | 0.883                      | 0.780                                        |       |
| 折射率温度系数常数    Constants of dn/dt                               |                |                                      | D <sub>W</sub>                              |         | 2                         |         | 320                                   | 0.798                      | 0.637                                        |       |
| D <sub>0</sub>                                                | 3.82E-06       |                                      | D <sub>A</sub>                              |         | 4                         |         | 310                                   | 0.668                      | 0.446                                        |       |
| D <sub>1</sub>                                                | 1.69E-08       |                                      | CR                                          |         | 1                         |         | 300                                   | 0.490                      | 0.240                                        |       |
| D <sub>2</sub>                                                | -5.99E-11      |                                      | RC(S)                                       |         |                           |         | 290                                   | 0.293                      | 0.086                                        |       |
| E <sub>0</sub>                                                | 2.95E-07       |                                      | RA(S)                                       |         |                           |         | 280                                   |                            |                                              |       |
| E <sub>1</sub>                                                | 2.52E-10       |                                      |                                             |         |                           |         |                                       |                            |                                              |       |
| λ <sub>TK</sub> (μm)                                          | 0.271          |                                      |                                             |         |                           |         |                                       |                            |                                              |       |
|                                                               |                |                                      |                                             |         |                           |         |                                       |                            |                                              |       |
| 折 射 率 温 度 系 数    Temperature Coefficients of Refractive Index |                |                                      |                                             |         |                           |         | 机 械 性 质    Mechanical Properties      |                            |                                              |       |
| 温度范围 (°C)<br>Range of Temperature                             |                | dn/dt relative(10 <sup>-6</sup> /°C) |                                             |         |                           |         | H <sub>K</sub> (10 <sup>7</sup> Pa)   |                            | 547                                          |       |
|                                                               |                | t                                    | C'                                          | d       | e                         | F'      | g                                     | F <sub>A</sub>             |                                              | 127   |
| -60~-40                                                       |                | 2.6                                  | 2.9                                         | 3.1     | 3.1                       | 3.6     | 3.5                                   | E (10 <sup>7</sup> Pa)     |                                              | 9212  |
| -40~-20                                                       |                | 2.9                                  | 3.3                                         | 3.6     | 3.6                       | 3.8     | 4.0                                   | G (10 <sup>7</sup> Pa)     |                                              | 3662  |
| -20~0                                                         |                | 3.3                                  | 3.6                                         | 3.7     | 3.8                       | 4.1     | 4.4                                   | μ                          |                                              | 0.258 |
| 0~20                                                          |                | 3.4                                  | 3.6                                         | 3.8     | 4.0                       | 4.4     | 4.6                                   | B (10 <sup>-12</sup> /Pa)  |                                              | 2.40  |
| 20~40                                                         |                | 3.5                                  | 3.8                                         | 3.9     | 4.1                       | 4.4     | 4.8                                   |                            |                                              |       |
| 40~60                                                         |                | 3.6                                  | 3.9                                         | 4.0     | 4.1                       | 4.5     | 4.8                                   | 其他性质    Other Properties   |                                              |       |
| 60~80                                                         |                | 3.6                                  | 3.9                                         | 4.0     | 4.1                       | 4.5     | 4.8                                   | ρ (g/cm <sup>3</sup> )     |                                              | 3.01  |
| 80~100                                                        |                | 3.6                                  | 3.9                                         | 4.0     | 4.2                       | 4.5     | 4.9                                   |                            |                                              |       |
| 100~120                                                       |                | 3.6                                  | 3.9                                         | 4.1     | 4.3                       | 4.5     | 5.0                                   | 备 注    Remarks             |                                              |       |
| 120~140                                                       |                | 3.6                                  | 4.0                                         | 4.3     | 4.4                       | 4.7     | 5.2                                   | **: 退火速率 anneal rate 25℃/h |                                              |       |
|                                                               |                |                                      |                                             |         |                           |         |                                       |                            |                                              |       |