

## N-BAK4 569560.305

|                 |               |                              |
|-----------------|---------------|------------------------------|
| $n_d = 1.56883$ | $v_d = 55.98$ | $n_F - n_C = 0.010162$       |
| $n_e = 1.57125$ | $v_e = 55.70$ | $n_{F'} - n_{C'} = 0.010255$ |

| Refractive Indices |                |         |
|--------------------|----------------|---------|
|                    | $\lambda$ [nm] |         |
| $n_{2325.4}$       | 2325.4         | 1.54044 |
| $n_{1970.1}$       | 1970.1         | 1.54561 |
| $n_{1529.6}$       | 1529.6         | 1.55111 |
| $n_{1060.0}$       | 1060.0         | 1.55688 |
| $n_t$              | 1014.0         | 1.55755 |
| $n_s$              | 852.1          | 1.56034 |
| $n_r$              | 706.5          | 1.56400 |
| $n_C$              | 656.3          | 1.56575 |
| $n_{C'}$           | 643.8          | 1.56624 |
| $n_{632.8}$        | 632.8          | 1.56670 |
| $n_D$              | 589.3          | 1.56874 |
| $n_d$              | 587.6          | 1.56883 |
| $n_e$              | 546.1          | 1.57125 |
| $n_F$              | 486.1          | 1.57591 |
| $n_{F'}$           | 480.0          | 1.57649 |
| $n_g$              | 435.8          | 1.58149 |
| $n_h$              | 404.7          | 1.58614 |
| $n_i$              | 365.0          | 1.59415 |
| $n_{334.1}$        | 334.1          |         |
| $n_{312.6}$        | 312.6          |         |
| $n_{296.7}$        | 296.7          |         |
| $n_{280.4}$        | 280.4          |         |
| $n_{248.3}$        | 248.3          |         |

| Internal Transmittance $\tau_i$ |                 |                 |
|---------------------------------|-----------------|-----------------|
| $\lambda$ [nm]                  | $\tau_i$ (10mm) | $\tau_i$ (25mm) |
| 2500                            | 0.782           | 0.540           |
| 2325                            | 0.872           | 0.710           |
| 1970                            | 0.959           | 0.900           |
| 1530                            | 0.993           | 0.982           |
| 1060                            | 0.998           | 0.995           |
| 700                             | 0.999           | 0.997           |
| 660                             | 0.998           | 0.995           |
| 620                             | 0.998           | 0.995           |
| 580                             | 0.998           | 0.996           |
| 546                             | 0.998           | 0.996           |
| 500                             | 0.998           | 0.994           |
| 460                             | 0.996           | 0.989           |
| 436                             | 0.995           | 0.988           |
| 420                             | 0.995           | 0.987           |
| 405                             | 0.993           | 0.983           |
| 400                             | 0.992           | 0.980           |
| 390                             | 0.987           | 0.967           |
| 380                             | 0.976           | 0.940           |
| 370                             | 0.954           | 0.890           |
| 365                             | 0.933           | 0.840           |
| 350                             | 0.787           | 0.550           |
| 334                             | 0.345           | 0.070           |
| 320                             | 0.012           |                 |
| 310                             |                 |                 |
| 300                             |                 |                 |
| 290                             |                 |                 |
| 280                             |                 |                 |
| 270                             |                 |                 |
| 260                             |                 |                 |
| 250                             |                 |                 |

| Relative Partial Dispersion |        |
|-----------------------------|--------|
| $P_{s,t}$                   | 0.2749 |
| $P_{C,s}$                   | 0.5321 |
| $P_{d,C}$                   | 0.3029 |
| $P_{e,d}$                   | 0.2383 |
| $P_{g,F}$                   | 0.5487 |
| $P_{i,h}$                   | 0.7879 |
|                             |        |
| $P'_{s,t}$                  | 0.2724 |
| $P'_{C',s}$                 | 0.5750 |
| $P'_{d,C'}$                 | 0.2524 |
| $P'_{e,d}$                  | 0.2361 |
| $P'_{g,F'}$                 | 0.4869 |
| $P'_{i,h}$                  | 0.7807 |

### Deviation of Relative Partial Dispersions $\Delta P$ from the "Normal Line"

|                  |         |
|------------------|---------|
| $\Delta P_{C,t}$ | -0.0034 |
| $\Delta P_{C,s}$ | -0.0013 |
| $\Delta P_{F,e}$ | -0.0001 |
| $\Delta P_{g,F}$ | -0.0010 |
| $\Delta P_{i,g}$ | -0.0087 |

| Constants of Dispersion Formula |               |
|---------------------------------|---------------|
| $B_1$                           | 1.28834642    |
| $B_2$                           | 0.132817724   |
| $B_3$                           | 0.945395373   |
| $C_1$                           | 0.00779980626 |
| $C_2$                           | 0.0315631177  |
| $C_3$                           | 105.965875    |

| Constants of Dispersion $dn/dT$ |                        |
|---------------------------------|------------------------|
| $D_0$                           | $3.06 \cdot 10^{-6}$   |
| $D_1$                           | $1.44 \cdot 10^{-8}$   |
| $D_2$                           | $-2.23 \cdot 10^{-11}$ |
| $E_0$                           | $5.46 \cdot 10^{-7}$   |
| $E_1$                           | $6.05 \cdot 10^{-10}$  |
| $\lambda_{TK} [\mu m]$          | 0.189                  |

| Color Code                      |       |
|---------------------------------|-------|
| $\lambda_{80}/\lambda_5$        | 36/33 |
| (* = $\lambda_{70}/\lambda_5$ ) |       |

| Remarks |  |
|---------|--|
|         |  |

| Other Properties                        |       |
|---|-------|
| $\alpha_{-30/+70^\circ C} [10^{-6}/K]$  | 7.0   |
| $\alpha_{+20/+300^\circ C} [10^{-6}/K]$ | 7.9   |
| $T_g [^\circ C]$                        | 581   |
| $T_{10}^{13.0} [^\circ C]$              | 569   |
| $T_{10}^{7.6} [^\circ C]$               | 725   |
| $c_p [J/(g \cdot K)]$                   | 0.680 |
| $\lambda [W/(m \cdot K)]$               | 0.880 |
|   |       |
| $\rho [g/cm^3]$                         | 3.05  |
| $E [10^3 N/mm^2]$                       | 77    |
| $\mu$                                   | 0.240 |
| $K [10^{-6} mm^2/N]$                    | 2.90  |
| $HK_{0.1/20}$                           | 550   |
| <b>HG</b>                               | 2     |
|   |       |
|   |       |
|   |       |
| <b>CR</b>                               | 1     |
| <b>FR</b>                               | 0     |
| <b>SR</b>                               | 1.2   |
| <b>AR</b>                               | 1     |
| <b>PR</b>                               | 1     |

| Temperature Coefficients of Refractive Index |                                       |     |     |                                       |     |     |
|--|---------------------------------------|-----|-----|---------------------------------------|-----|-----|
| [ $^\circ C$ ]                               | $\Delta n_{rel}/\Delta T [10^{-6}/K]$ |     |     | $\Delta n_{abs}/\Delta T [10^{-6}/K]$ |     |     |
|  | 1060.0                                | e   | g   | 1060.0                                | e   | g   |
| -40/ -20                                     | 3.0                                   | 3.7 | 4.4 | 0.9                                   | 1.5 | 2.2 |
| +20/ +40                                     | 3.1                                   | 3.9 | 4.7 | 1.8                                   | 2.6 | 3.3 |
| +60/ +80                                     | 3.3                                   | 4.2 | 5.0 | 2.2                                   | 3.1 | 3.9 |