

## N-SF10 728285.305

|                 |               |                              |
|-----------------|---------------|------------------------------|
| $n_d = 1.72828$ | $v_d = 28.53$ | $n_F - n_C = 0.025524$       |
| $n_e = 1.73430$ | $v_e = 28.31$ | $n_{F'} - n_{C'} = 0.025941$ |

| Refractive Indices |                |         |
|--------------------|----------------|---------|
|                    | $\lambda$ [nm] |         |
| $n_{2325.4}$       | 2325.4         | 1.67981 |
| $n_{1970.1}$       | 1970.1         | 1.68597 |
| $n_{1529.6}$       | 1529.6         | 1.69308 |
| $n_{1060.0}$       | 1060.0         | 1.70217 |
| $n_t$              | 1014.0         | 1.70340 |
| $n_s$              | 852.1          | 1.70891 |
| $n_r$              | 706.5          | 1.71688 |
| $n_C$              | 656.3          | 1.72091 |
| $n_{C'}$           | 643.8          | 1.72206 |
| $n_{632.8}$        | 632.8          | 1.72314 |
| $n_D$              | 589.3          | 1.72806 |
| $n_d$              | 587.6          | 1.72828 |
| $n_e$              | 546.1          | 1.73430 |
| $n_F$              | 486.1          | 1.74643 |
| $n_{F'}$           | 480.0          | 1.74800 |
| $n_g$              | 435.8          | 1.76191 |
| $n_h$              | 404.7          | 1.77578 |
| $n_i$              | 365.0          |         |
| $n_{334.1}$        | 334.1          |         |
| $n_{312.6}$        | 312.6          |         |
| $n_{296.7}$        | 296.7          |         |
| $n_{280.4}$        | 280.4          |         |
| $n_{248.3}$        | 248.3          |         |

| Constants of Dispersion Formula |              |
|---------------------------------|--------------|
| $B_1$                           | 1.62153902   |
| $B_2$                           | 0.256287842  |
| $B_3$                           | 1.64447552   |
| $C_1$                           | 0.0122241457 |
| $C_2$                           | 0.0595736775 |
| $C_3$                           | 147.468793   |

| Constants of Dispersion $dn/dT$ |                        |
|---------------------------------|------------------------|
| $D_0$                           | $-4.68 \cdot 10^{-6}$  |
| $D_1$                           | $7.41 \cdot 10^{-9}$   |
| $D_2$                           | $-1.89 \cdot 10^{-11}$ |
| $E_0$                           | $9.49 \cdot 10^{-7}$   |
| $E_1$                           | $1.42 \cdot 10^{-9}$   |
| $\lambda_{TK} [\mu m]$          | 0.279                  |

| Temperature Coefficients of Refractive Index |   |     |     |   |      |     |
|--|---|-----|-----|---|------|-----|
|  | $\Delta n_{rel} / \Delta T [10^{-6} / K]$ |     |     | $\Delta n_{abs} / \Delta T [10^{-6} / K]$ |      |     |
| $^{\circ}C$                                  | 1060.0                                    | e   | g   | 1060.0                                    | e    | g   |
| -40/ -20                                     | -0.4                                      | 1.3 | 3.4 | -2.7                                      | -1.1 | 1.0 |
| +20/ +40                                     | -0.5                                      | 1.5 | 4.1 | -2.0                                      | -0.1 | 2.5 |
| +60/ +80                                     | -0.5                                      | 1.7 | 4.6 | -1.7                                      | 0.5  | 3.4 |

| Internal Transmittance $\tau_i$ |                 |                 |
|---------------------------------|-----------------|-----------------|
| $\lambda$ [nm]                  | $\tau_i$ (10mm) | $\tau_i$ (25mm) |
| 2500                            | 0.847           | 0.660           |
| 2325                            | 0.896           | 0.760           |
| 1970                            | 0.971           | 0.930           |
| 1530                            | 0.994           | 0.985           |
| 1060                            | 0.996           | 0.990           |
| 700                             | 0.993           | 0.983           |
| 660                             | 0.990           | 0.976           |
| 620                             | 0.991           | 0.977           |
| 580                             | 0.991           | 0.978           |
| 546                             | 0.989           | 0.973           |
| 500                             | 0.978           | 0.945           |
| 460                             | 0.963           | 0.910           |
| 436                             | 0.946           | 0.870           |
| 420                             | 0.924           | 0.820           |
| 405                             | 0.867           | 0.700           |
| 400                             | 0.837           | 0.640           |
| 390                             | 0.727           | 0.450           |
| 380                             | 0.525           | 0.200           |
| 370                             | 0.176           |                 |
| 365                             | 0.058           |                 |
| 350                             |                 |                 |
| 334                             |                 |                 |
| 320                             |                 |                 |
| 310                             |                 |                 |
| 300                             |                 |                 |
| 290                             |                 |                 |
| 280                             |                 |                 |
| 270                             |                 |                 |
| 260                             |                 |                 |
| 250                             |                 |                 |

| Color Code                        |       |
|-----------------------------------|-------|
| $\lambda_{80} / \lambda_5$        | 42/36 |
| (* = $\lambda_{70} / \lambda_5$ ) |       |

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

| Relative Partial Dispersion |        |
|-----------------------------|--------|
| $P_{s,t}$                   | 0.2160 |
| $P_{C,s}$                   | 0.4701 |
| $P_{d,C}$                   | 0.2888 |
| $P_{e,d}$                   | 0.2359 |
| $P_{g,F}$                   | 0.6066 |
| $P_{i,h}$                   |        |
| $P'_{s,t}$                  | 0.2125 |
| $P'_{C',s}$                 | 0.5068 |
| $P'_{d,C'}$                 | 0.2398 |
| $P'_{e,d}$                  | 0.2321 |
| $P'_{g,F'}$                 | 0.5365 |
| $P'_{i,h}$                  |        |

| Deviation of Relative Partial Dispersions $\Delta P$ from the "Normal Line" |        |
|---|--------|
| $\Delta P_{C,t}$  | 0.0057 |
| $\Delta P_{C,s}$  | 0.0007 |
| $\Delta P_{F,e}$  | 0.0019 |
| $\Delta P_{g,F}$  | 0.0108 |
| $\Delta P_{i,g}$  |        |

| Other Properties                           |       |
|--|-------|
| $\alpha_{-30/+70^{\circ}C} [10^{-6} / K]$  | 9.4   |
| $\alpha_{+20/+300^{\circ}C} [10^{-6} / K]$ | 10.8  |
| $T_g [^{\circ}C]$                          | 559   |
| $T_{10}^{13.0} [^{\circ}C]$                | 549   |
| $T_{10}^{7.6} [^{\circ}C]$                 | 652   |
| $c_p [J/(g \cdot K)]$                      | 0.740 |
| $\lambda [W/(m \cdot K)]$                  | 0.960 |
| $\rho [g/cm^3]$                            | 3.05  |
| $E [10^3 N/mm^2]$                          | 87    |
| $\mu$                                      | 0.252 |
| $K [10^{-6} mm^2 / N]$                     | 2.92  |
| $HK_{0.1/20}$                              | 540   |
| HG   | 5     |
| CR   | 1     |
| FR   | 0     |
| SR   | 1     |
| AR   | 1     |
| PR   | 1     |