

# BAFD7

# 702-412

$n_d = 1.70154$   $\nu_d = 41.15$   $n_F - n_C = 0.017049$   
 $n_e = 1.70559$   $\nu_e = 40.86$   $n_{F'} - n_{C'} = 0.017270$

| 屈折率 Refractive Index |                |         |
|----------------------|----------------|---------|
|                      | $\lambda$ (nm) |         |
| $n_t$                | 1013.98        | 1.68408 |
| $n_s$                | 852.11         | 1.68809 |
| $n_{A'}$             | 768.19         | 1.69098 |
| $n_r$                | 706.52         | 1.69372 |
| $n_c$                | 656.27         | 1.69651 |
| $n_{c'}$             | 643.85         | 1.69730 |
| $n_{633}$            | 632.80         | 1.69804 |
| $n_D$                | 589.29         | 1.70139 |
| $n_d$                | 587.56         | 1.70154 |
| $n_e$                | 546.07         | 1.70559 |
| $n_F$                | 486.13         | 1.71356 |
| $n_{F'}$             | 479.99         | 1.71457 |
| $n_g$                | 435.84         | 1.72339 |
| $n_h$                | 404.66         | 1.73189 |
| $n_i$                | 365.01         | 1.74719 |

| 分散式の定数 Constants of dispersion formula |                             |
|--|-----------------------------|
| $A_0$                                  | 2.8217211                   |
| $A_1$                                  | $-9.7265483 \times 10^{-3}$ |
| $A_2$                                  | $2.4345979 \times 10^{-2}$  |
| $A_3$                                  | $7.8406305 \times 10^{-4}$  |
| $A_4$                                  | $-2.2431497 \times 10^{-5}$ |
| $A_5$                                  | $4.6726029 \times 10^{-6}$  |

| 部分分散 Partial dispersions |          |
|--------------------------|----------|
| $n_C - n_t$              | 0.012429 |
| $n_d - n_C$              | 0.005034 |
| $n_F - n_d$              | 0.012015 |
| $n_g - n_F$              | 0.009836 |
| $n_{C'} - n_t$           | 0.013220 |
| $n_e - n_{C'}$           | 0.008288 |
| $n_{F'} - n_e$           | 0.008982 |
| $n_g - n_{F'}$           | 0.008824 |

| 部分分散比 Partial dispersion rates |        |            |        |
|--------------------------------|--------|------------|--------|
| $P_{C,t}$                      | 0.7290 | $P'_{C,t}$ | 0.7655 |
| $P_{d,C}$                      | 0.2953 | $P'_{d,C}$ | 0.2457 |
| $P_{e,d}$                      | 0.2373 | $P'_{e,d}$ | 0.2342 |
| $P_{F,e}$                      | 0.4675 | $P'_{F,e}$ | 0.5201 |
| $P_{g,F}$                      | 0.5769 | $P'_{g,F}$ | 0.5109 |
| $P_{h,g}$                      | 0.4983 | $P'_{h,g}$ | 0.4919 |
| $P_{i,h}$                      | 0.8975 | $P'_{i,h}$ | 0.8860 |

| 異常分散性 Anomalous dispersions |         |
|-----------------------------|---------|
| $\Delta P_{C,t}$            | -0.0092 |
| $\Delta P_{C,A'}$           | -0.0026 |
| $\Delta P_{g,d}$            | 0.0037  |
| $\Delta P_{g,F}$            | 0.0028  |
| $\Delta P_{i,g}$            | 0.0187  |

| 化学的性質 Chemical Properties |   |
|---------------------------|---|
| $D_W$                     | 1 |
| $D_A$                     | 1 |
| $T_{Blue}$                | 1 |
| $D_{NaOH}$                | 1 |
| $D_{STPP}$                | 1 |
| $D_0$                     | 1 |
| $D_H$                     |   |

| 熱的性質 Thermal Properties            |       |
|------------------------------------|-------|
| $T_g$ (°C)                         | 582   |
| $T_s$ (°C)                         | 646   |
| $T_{10^{14.5}}$ (°C)               | 558   |
| $T_{10^{13}}$ (°C)                 | 575   |
| $T_{10^{7.6}}$ (°C)                | 707   |
| $\alpha_{-30/+70}$ ( $10^{-7}/K$ ) | 68    |
| $\alpha_{100/300}$ ( $10^{-7}/K$ ) | 84    |
| $\lambda$ [W/(m·K)]                | 0.902 |
| $C_p$ [kJ/(kg·K)]                  | 0.556 |

| 機械的性質 Mechanical Properties |         |
|-----------------------------|---------|
| $H_K$                       | 595 (6) |
| $F_A$                       | 140     |
| $E$ (GPa)                   | 97      |
| $G$ (GPa)                   | 38.0    |
| $\mu$                       | 0.276   |
| $\sigma_b$ (MPa)            |         |

| 屈折率の温度係数 Thermal coefficient of refractive indices ( $\times 10^{-6}/K$ ) |              |              |
|---|--------------|--------------|
| (°C)  | dn/dT (rel.) | dn/dT (abs.) |
| -40/-20   | 4.6          | 2.3          |
| -20/0   | 4.7          | 2.7          |
| 0/+20   | 4.8          | 3.1          |
| +20/+40   | 5.0          | 3.4          |
| +40/+60   | 5.0          | 3.7          |
| +60/+80   | 5.1          | 4.0          |

| 冷却速度による屈折率の変化 Difference of refractive indices by cooling rate |  |
|--|--|
| $\beta_C$  |  |
| $\beta_d$  |  |
| $\beta_F$  |  |
| $\beta_g$  |  |

| 光弾性定数 Photoelastic Constant |      |
|-----------------------------|------|
| $B$ ( $10^{-12}/Pa$ )       | 2.25 |

| その他の性質 Other Property |      |
|-----------------------|------|
| 比重 d                  | 3.65 |

| 内部透過率 Internal Transmittance |            |             |
|------------------------------|------------|-------------|
| $\lambda$ (nm)               | $\tau$ 5mm | $\tau$ 10mm |
| 1550                         | 0.999      | 0.997       |
| 1500                         | 0.998      | 0.996       |
| 1400                         | 0.999      | 0.998       |
| 1300                         | 0.999      | 0.999       |
| 1200                         | 0.999      | 0.999       |
| 1100                         | 0.999      | 0.999       |
| 1060                         | 0.999      | 0.999       |
| 1050                         | 0.999      | 0.999       |
| 1000                         | 0.999      | 0.999       |
| 950                          | 0.999      | 0.999       |
| 900                          | 0.999      | 0.999       |
| 850                          | 0.999      | 0.999       |
| 830                          | 0.999      | 0.999       |
| 800                          | 0.999      | 0.999       |
| 780                          | 0.999      | 0.999       |
| 750                          | 0.999      | 0.999       |
| 700                          | 0.999      | 0.997       |
| 650                          | 0.998      | 0.996       |
| 600                          | 0.998      | 0.996       |
| 550                          | 0.998      | 0.996       |
| 500                          | 0.995      | 0.990       |
| 480                          | 0.993      | 0.987       |
| 460                          | 0.988      | 0.977       |
| 440                          | 0.987      | 0.974       |
| 420                          | 0.982      | 0.964       |
| 400                          | 0.960      | 0.921       |
| 390                          | 0.930      | 0.870       |
| 380                          | 0.880      | 0.770       |
| 370                          | 0.760      | 0.580       |
| 360                          | 0.510      | 0.260       |
| 350                          | 0.160      | 0.030       |
| 340                          | 0.070      | 0.010       |
| 330                          |            |             |
| 320                          |            |             |
| 310                          |            |             |
| 300                          |            |             |
| 290                          |            |             |
| 280                          |            |             |

| 着色度 Coloring                                  |       |
|---|-------|
| $\lambda_{80}(\lambda_{70})/\lambda_5$        | 40/35 |
| $\lambda_{\tau 0.8}$                          |       |
| 色度(D <sub>65</sub> ) Chromaticity coordinates |       |
| x   |       |
| y   |       |

| 備考 Remarks |  |
|------------|--|
| 作成 201004  |  |
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|            |  |