

# E-F1

# 626-357

$n_d = 1.62588$   $\nu_d = 35.74$   $n_F - n_C = 0.017512$   
 $n_e = 1.63003$   $\nu_e = 35.48$   $n_{F'} - n_{C'} = 0.017757$

| 屈折率 Refractive Index |                |         |
|----------------------|----------------|---------|
|                      | $\lambda$ (nm) |         |
| $n_t$                | 1013.98        | 1.60805 |
| $n_s$                | 852.11         | 1.61216 |
| $n_{A'}$             | 768.19         | 1.61511 |
| $n_r$                | 706.52         | 1.61790 |
| $n_c$                | 656.27         | 1.62074 |
| $n_{c'}$             | 643.85         | 1.62155 |
| $n_{633}$            | 632.80         | 1.62230 |
| $n_D$                | 589.29         | 1.62573 |
| $n_d$                | 587.56         | 1.62588 |
| $n_e$                | 546.07         | 1.63003 |
| $n_F$                | 486.13         | 1.63825 |
| $n_{F'}$             | 479.99         | 1.63930 |
| $n_g$                | 435.84         | 1.64854 |
| $n_h$                | 404.66         | 1.65758 |
| $n_i$                | 365.01         | 1.67427 |

| 分散式の定数 Constants of dispersion formula |                             |
|--|-----------------------------|
| $A_0$                                  | 2.5730565                   |
| $A_1$                                  | $-1.0203605 \times 10^{-2}$ |
| $A_2$                                  | $2.3095784 \times 10^{-2}$  |
| $A_3$                                  | $8.7114252 \times 10^{-4}$  |
| $A_4$                                  | $-3.0730079 \times 10^{-5}$ |
| $A_5$                                  | $6.9457986 \times 10^{-6}$  |

| 部分分散 Partial dispersions |          |
|--------------------------|----------|
| $n_c - n_t$              | 0.012689 |
| $n_d - n_c$              | 0.005139 |
| $n_F - n_d$              | 0.012373 |
| $n_g - n_F$              | 0.010291 |
| $n_{c'} - n_t$           | 0.013495 |
| $n_e - n_{c'}$           | 0.008479 |
| $n_{F'} - n_e$           | 0.009278 |
| $n_g - n_{F'}$           | 0.009240 |

| 部分分散比 Partial dispersion rates |        |            |        |
|--------------------------------|--------|------------|--------|
| $P_{c,t}$                      | 0.7246 | $P'_{c,t}$ | 0.7600 |
| $P_{d,c}$                      | 0.2935 | $P'_{d,c}$ | 0.2440 |
| $P_{e,d}$                      | 0.2368 | $P'_{e,d}$ | 0.2335 |
| $P_{F,e}$                      | 0.4698 | $P'_{F,e}$ | 0.5225 |
| $P_{g,F}$                      | 0.5877 | $P'_{g,F}$ | 0.5204 |
| $P_{h,g}$                      | 0.5162 | $P'_{h,g}$ | 0.5090 |
| $P_{i,h}$                      | 0.9528 | $P'_{i,h}$ | 0.9396 |

| 異常分散性 Anomalous dispersions |        |
|-----------------------------|--------|
| $\Delta P_{c,t}$            | 0.0117 |
| $\Delta P_{c,A'}$           | 0.0013 |
| $\Delta P_{g,d}$            | 0.0039 |
| $\Delta P_{g,F}$            | 0.0038 |
| $\Delta P_{i,g}$            | 0.0440 |

| 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)                         | 569   |
| $T_s$ (°C)                         | 621   |
| $T_{10^{14.5}}$ (°C)               | 540   |
| $T_{10^{13}}$ (°C)                 | 562   |
| $T_{10^{7.6}}$ (°C)                | 679   |
| $\alpha_{-30/+70}$ ( $10^{-7}/K$ ) | 86    |
| $\alpha_{100/300}$ ( $10^{-7}/K$ ) | 107   |
| $\lambda$ [W/(m·K)]                | 1.090 |
| $C_p$ [kJ/(kg·K)]                  | 0.752 |

| 機械的性質 Mechanical Properties |         |
|-----------------------------|---------|
| $H_K$                       | 550 (6) |
| $F_A$                       | 140     |
| $E$ (GPa)                   | 78      |
| $G$ (GPa)                   | 31.5    |
| $\mu$                       | 0.242   |
| $\sigma_b$ (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   | 1.3            | -0.9           |
| -20/ 0  | 1.4            | -0.4           |
| 0/+20   | 1.6            | -0.1           |
| +20/+40   | 1.7            | 0.3            |
| +40/+60   | 1.8            | 0.6            |
| +60/+80   | 1.9            | 0.8            |

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

| 比重 Specific Gravity |      |
|---------------------|------|
| $d$                 | 2.70 |

| 内部透過率 Internal Transmittance |            |             |
|------------------------------|------------|-------------|
| $\lambda$ (nm)               | $\tau$ 5mm | $\tau$ 10mm |
| 1550                         | 0.996      | 0.992       |
| 1500                         | 0.996      | 0.993       |
| 1400                         | 0.996      | 0.992       |
| 1300                         | 0.999      | 0.997       |
| 1200                         | 0.999      | 0.997       |
| 1100                         | 0.999      | 0.997       |
| 1060                         | 0.999      | 0.997       |
| 1050                         | 0.999      | 0.997       |
| 1000                         | 0.999      | 0.997       |
| 950                          | 0.999      | 0.997       |
| 900                          | 0.999      | 0.997       |
| 850                          | 0.999      | 0.998       |
| 830                          | 0.999      | 0.998       |
| 800                          | 0.999      | 0.997       |
| 780                          | 0.998      | 0.997       |
| 750                          | 0.998      | 0.996       |
| 700                          | 0.998      | 0.997       |
| 650                          | 0.998      | 0.997       |
| 600                          | 0.998      | 0.997       |
| 550                          | 0.999      | 0.997       |
| 500                          | 0.996      | 0.993       |
| 480                          | 0.995      | 0.989       |
| 460                          | 0.993      | 0.986       |
| 440                          | 0.991      | 0.982       |
| 420                          | 0.988      | 0.976       |
| 400                          | 0.972      | 0.946       |
| 390                          | 0.947      | 0.896       |
| 380                          | 0.877      | 0.769       |
| 370                          | 0.704      | 0.495       |
| 360                          | 0.345      | 0.119       |
| 350                          |            |             |
| 340                          |            |             |
| 330                          |            |             |
| 320                          |            |             |
| 310                          |            |             |
| 300                          |            |             |
| 290                          |            |             |
| 280                          |            |             |

| 着色度 Coloration Code                   |         |
|---------------------------------------|---------|
| $\lambda 80 (\lambda 70) / \lambda 5$ | 390/360 |

| 着色度 (内部透過率) Coloration of Internal Transmittance |         |
|--|---------|
| $\lambda \tau 80 / \lambda \tau 5$               | 382/357 |

| 備考 Remarks                        |         |        |         |         |         |
|-----------------------------------|---------|--------|---------|---------|---------|
| 硝種対照表 Glass Cross Reference Index |         |        |         |         |         |
|                                   | HOYA    | SCHOTT | OHARA   | HIKARI  | CDGM    |
| Glass Type                        | E-F1    |        | S-TIM1  | E-F1    | H-F13   |
| Code                              | 626-357 |        | 626-357 | 626-356 | 626-357 |
| 作成 201104                         |         |        |         |         |         |