

TAFD25

904-313

$n_d = 1.90366$ $\nu_d = 31.32$ $n_F - n_C = 0.028857$
 $n_e = 1.91048$ $\nu_e = 31.08$ $n_{F'} - n_{C'} = 0.029295$

| 屈折率 Refractive Index | | |
|----------------------|----------------|---------|
| | λ (nm) | |
| n_t | 1013.98 | 1.87516 |
| n_s | 852.11 | 1.88152 |
| $n_{A'}$ | 768.19 | 1.88619 |
| n_r | 706.52 | 1.89066 |
| n_c | 656.27 | 1.89526 |
| $n_{c'}$ | 643.85 | 1.89657 |
| n_{633} | 632.80 | 1.89781 |
| n_D | 589.29 | 1.90341 |
| n_d | 587.56 | 1.90366 |
| n_e | 546.07 | 1.91048 |
| n_F | 486.13 | 1.92412 |
| $n_{F'}$ | 479.99 | 1.92587 |
| n_g | 435.84 | 1.94128 |
| n_h | 404.66 | 1.95643 |
| n_i | 365.01 | 1.98458 |

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

| 内部透過率 Internal Transmittance | | |
|------------------------------|------------|-------------|
| λ (nm) | τ 5mm | τ 10mm |
| 1550 | 0.998 | 0.997 |
| 1500 | 0.998 | 0.996 |
| 1400 | 0.999 | 0.998 |
| 1300 | 0.999 | 0.999 |
| 1200 | 0.999 | 0.998 |
| 1100 | 0.999 | 0.998 |
| 1060 | 0.999 | 0.998 |
| 1050 | 0.999 | 0.998 |
| 1000 | 0.999 | 0.997 |
| 950 | 0.998 | 0.997 |
| 900 | 0.998 | 0.996 |
| 850 | 0.998 | 0.996 |
| 830 | 0.998 | 0.996 |
| 800 | 0.999 | 0.997 |
| 780 | 0.999 | 0.997 |
| 750 | 0.998 | 0.996 |
| 700 | 0.997 | 0.995 |
| 650 | 0.997 | 0.995 |
| 600 | 0.998 | 0.995 |
| 550 | 0.998 | 0.996 |
| 500 | 0.993 | 0.986 |
| 480 | 0.990 | 0.980 |
| 460 | 0.984 | 0.969 |
| 440 | 0.977 | 0.955 |
| 420 | 0.962 | 0.926 |
| 400 | 0.924 | 0.854 |
| 390 | 0.880 | 0.775 |
| 380 | 0.787 | 0.619 |
| 370 | 0.593 | 0.352 |
| 360 | 0.264 | 0.069 |
| 350 | | |
| 340 | | |
| 330 | | |
| 320 | | |
| 310 | | |
| 300 | | |
| 290 | | |
| 280 | | |

| 分散式の定数 Constants of dispersion formula | |
|--|-----------------------------|
| A_0 | 3.490528 |
| A_1 | $-1.6325771 \times 10^{-2}$ |
| A_2 | 4.1146322×10^{-2} |
| A_3 | 2.7169124×10^{-3} |
| A_4 | $-1.8260518 \times 10^{-4}$ |
| A_5 | 2.0641862×10^{-5} |

| 熱的性質 Thermal Properties | |
|------------------------------------|-------|
| T_g (°C) | 655 |
| T_s (°C) | 707 |
| $T_{10^{14.5}}$ (°C) | 634 |
| $T_{10^{13}}$ (°C) | 651 |
| $T_{10^{7.6}}$ (°C) | 735 |
| $\alpha_{-30/+70}$ ($10^{-7}/K$) | 76 |
| $\alpha_{100/300}$ ($10^{-7}/K$) | 88 |
| λ [W/(m·K)] | 0.820 |
| C_p [kJ/(kg·K)] | 0.474 |

| 部分分散 Partial dispersions | |
|--------------------------|----------|
| $n_c - n_t$ | 0.020107 |
| $n_d - n_c$ | 0.008396 |
| $n_F - n_d$ | 0.020461 |
| $n_g - n_F$ | 0.017161 |
| $n_{c'} - n_t$ | 0.021417 |
| $n_e - n_{c'}$ | 0.013912 |
| $n_{F'} - n_e$ | 0.015383 |
| $n_g - n_{F'}$ | 0.015413 |

| 機械的性質 Mechanical Properties | |
|-----------------------------|---------|
| H_K | 630 (6) |
| F_A | 90 |
| E (GPa) | 113 |
| G (GPa) | 43.0 |
| μ | 0.299 |
| σ_b (MPa) | 88 |

| 部分分散比 Partial dispersion rates | | | |
|--------------------------------|--------|------------|--------|
| $P_{c,t}$ | 0.6968 | $P'_{c,t}$ | 0.7311 |
| $P_{d,c}$ | 0.2910 | $P'_{d,c}$ | 0.2419 |
| $P_{e,d}$ | 0.2365 | $P'_{e,d}$ | 0.2330 |
| $P_{F,e}$ | 0.4725 | $P'_{F,e}$ | 0.5251 |
| $P_{g,F}$ | 0.5947 | $P'_{g,F}$ | 0.5261 |
| $P_{h,g}$ | 0.5248 | $P'_{h,g}$ | 0.5170 |
| $P_{i,h}$ | 0.9757 | $P'_{i,h}$ | 0.9612 |

| 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 | 3.2 | 0.7 |
| -20/0 | 3.3 | 1.1 |
| 0/+20 | 3.4 | 1.5 |
| +20/+40 | 3.6 | 2.0 |
| +40/+60 | 3.8 | 2.4 |
| +60/+80 | 4.0 | 2.7 |

| 異常分散性 Anomalous dispersions | |
|-----------------------------|---------|
| $\Delta P_{c,t}$ | 0.0045 |
| $\Delta P_{c,A'}$ | -0.0006 |
| $\Delta P_{g,d}$ | 0.0033 |
| $\Delta P_{g,F}$ | 0.0028 |
| $\Delta P_{i,g}$ | 0.0365 |

| 冷却速度による屈折率の変化 Difference of refractive indices by cooling rate | |
|--|--|
| β_c | |
| β_d | |
| β_F | |
| β_g | |

| 着色度 Coloring | |
|---------------------------------------|-------------|
| $\lambda 80 (\lambda 70) / \lambda 5$ | (400) / 360 |
| $\lambda \tau 0.8$ | 393 |

| 色度 (D ₆₅) Chromaticity coordinates | |
|--|-------|
| x | 0.315 |
| y | 0.334 |

| 光弾性定数 Photoelastic Constant | |
|-----------------------------|------|
| B ($10^{-12}/Pa$) | 1.42 |

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

| その他の性質 Other Property | |
|-----------------------|------|
| 比重 d | 4.51 |