

PCD51

593-670

$n_d = 1.59349$ $\nu_d = 67.00$ $n_F - n_C = 0.008858$
 $n_e = 1.59561$ $\nu_e = 66.74$ $n_{F'} - n_{C'} = 0.008924$

| 屈折率 Refractive Index | | |
|----------------------|----------------|---------|
| | λ (nm) | |
| n_t | 1013.98 | 1.58325 |
| n_s | 852.11 | 1.58589 |
| $n_{A'}$ | 768.19 | 1.58764 |
| n_r | 706.52 | 1.58922 |
| n_c | 656.27 | 1.59078 |
| $n_{c'}$ | 643.85 | 1.59121 |
| n_{633} | 632.80 | 1.59162 |
| n_D | 589.29 | 1.59341 |
| n_d | 587.56 | 1.59349 |
| n_e | 546.07 | 1.59561 |
| n_F | 486.13 | 1.59964 |
| $n_{F'}$ | 479.99 | 1.60014 |
| n_g | 435.84 | 1.60439 |
| n_h | 404.66 | 1.60831 |
| n_i | 365.01 | 1.61494 |

| 分散式の定数 Constants of dispersion formula | |
|--|-----------------------------|
| A_0 | 2.5046638 |
| A_1 | $-1.0149448 \times 10^{-2}$ |
| A_2 | 1.2653769×10^{-2} |
| A_3 | 1.6566642×10^{-4} |
| A_4 | 5.3871747×10^{-7} |
| A_5 | 5.5840930×10^{-8} |

| 部分分散 Partial dispersions | |
|--------------------------|----------|
| $n_c - n_t$ | 0.007524 |
| $n_d - n_c$ | 0.002716 |
| $n_F - n_d$ | 0.006142 |
| $n_g - n_F$ | 0.004754 |
| $n_{c'} - n_t$ | 0.007958 |
| $n_e - n_{c'}$ | 0.004396 |
| $n_{F'} - n_e$ | 0.004528 |
| $n_g - n_{F'}$ | 0.004254 |

| 部分分散比 Partial dispersion rates | | | |
|--------------------------------|--------|------------|--------|
| $P_{c,t}$ | 0.8494 | $P'_{c,t}$ | 0.8918 |
| $P_{d,c}$ | 0.3066 | $P'_{d,c}$ | 0.2557 |
| $P_{e,d}$ | 0.2387 | $P'_{e,d}$ | 0.2369 |
| $P_{F,e}$ | 0.4547 | $P'_{F,e}$ | 0.5074 |
| $P_{g,F}$ | 0.5367 | $P'_{g,F}$ | 0.4767 |
| $P_{h,g}$ | 0.4424 | $P'_{h,g}$ | 0.4392 |
| $P_{i,h}$ | 0.7484 | $P'_{i,h}$ | 0.7428 |

| 異常分散性 Anomalous dispersions | |
|-----------------------------|---------|
| $\Delta P_{c,t}$ | -0.0095 |
| $\Delta P_{c,A'}$ | -0.0038 |
| $\Delta P_{g,d}$ | 0.0111 |
| $\Delta P_{g,F}$ | 0.0091 |
| $\Delta P_{i,g}$ | 0.0425 |

| 化学的性質 Chemical Properties | |
|---------------------------|---|
| D_W | 1 |
| D_A | 4 |
| T_{Blue} | + |
| D_{NaOH} | 3 |
| D_{STPP} | 3 |
| D_0 | 5 |
| D_H | 1 |

| 熱的性質 Thermal Properties | |
|------------------------------------|-------|
| T_g (°C) | 499 |
| T_s (°C) | 541 |
| $T_{10^{14.5}}$ (°C) | 475 |
| $T_{10^{13}}$ (°C) | 496 |
| $T_{10^{7.6}}$ (°C) | 580 |
| $\alpha_{-30/+70}$ ($10^{-7}/K$) | 93 |
| $\alpha_{100/300}$ ($10^{-7}/K$) | 116 |
| λ [W/(m·K)] | 0.882 |
| C_p [kJ/(kg·K)] | 0.709 |

| 機械的性質 Mechanical Properties | |
|-----------------------------|---------|
| H_K | 440 (4) |
| F_A | 270 |
| E (GPa) | 89 |
| G (GPa) | 34.8 |
| μ | 0.271 |
| σ_b (MPa) | 61 |

| 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 | -0.5 | -2.6 |
| -20/0 | -0.6 | -2.4 |
| 0/+20 | -0.7 | -2.2 |
| +20/+40 | -0.7 | -2.1 |
| +40/+60 | -0.7 | -1.9 |
| +60/+80 | -0.7 | -1.7 |

| 光弾性定数 Photoelastic Constant | |
|-----------------------------|------|
| B ($10^{-12}/Pa$) | 1.48 |

| 比重 Specific Gravity | |
|---------------------|------|
| d | 3.14 |

| 備考 Remarks | | | | | |
|-----------------------------------|---------|--------|-----------------------|------------------------|------|
| 硝種対照表 Glass Cross Reference Index | | | | | |
| Glass Type | HOYA | SCHOTT | OHARA | HIKARI | CDGM |
| Code | 593-670 | | (S-FPM2) (595-677) | (J-PSKH1) (593-679) | |
| 作成 201104 | | | | | |

| 内部透過率 Internal Transmittance | | |
|--|------------|-------------|
| λ (nm) | τ 5mm | τ 10mm |
| 1550 | 0.996 | 0.992 |
| 1500 | 0.996 | 0.992 |
| 1400 | 0.997 | 0.994 |
| 1300 | 0.999 | 0.998 |
| 1200 | 0.999 | 0.998 |
| 1100 | 0.999 | 0.998 |
| 1060 | 0.999 | 0.999 |
| 1050 | 0.999 | 0.998 |
| 1000 | 0.999 | 0.998 |
| 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 | 0.999 |
| 650 | 0.999 | 0.999 |
| 600 | 0.999 | 0.999 |
| 550 | 0.999 | 0.999 |
| 500 | 0.999 | 0.999 |
| 480 | 0.999 | 0.998 |
| 460 | 0.999 | 0.997 |
| 440 | 0.998 | 0.997 |
| 420 | 0.998 | 0.996 |
| 400 | 0.998 | 0.996 |
| 390 | 0.997 | 0.994 |
| 380 | 0.995 | 0.990 |
| 370 | 0.992 | 0.983 |
| 360 | 0.982 | 0.964 |
| 350 | 0.967 | 0.936 |
| 340 | 0.940 | 0.884 |
| 330 | 0.890 | 0.800 |
| 320 | 0.830 | 0.690 |
| 310 | 0.740 | 0.550 |
| 300 | 0.640 | 0.410 |
| 290 | 0.540 | 0.300 |
| 280 | 0.440 | 0.190 |
| 着色度 Coloration Code | | |
| $\lambda 80 (\lambda 70) / \lambda 5$ | 340/265 | |
| 着色度 (内部透過率) Coloration of Internal Transmittance | | |
| $\lambda \tau 80 / \lambda \tau 5$ | 330/261 | |