ガラスレンズ用プレス品硝種　Glass Lens Pressed Blanks
ガラス研磨レンズ用硝種　Glass Polished Lens

Ref

# TAC4

# 734-511

$n_d = 1.73400$　$\nu_d = 51.05$　$n_F - n_C = 0.014377$
$n_e = 1.73742$　$\nu_e = 50.82$　$n_{F'} - n_{C'} = 0.014511$

| 屈折率 Refractive Index | | |
|---|---|---|
| | λ (nm) | |
| $n_t$ | 1013.98 | 1.71807 |
| $n_s$ | 852.11 | 1.72200 |
| $n_{A'}$ | 768.19 | 1.72470 |
| $n_r$ | 706.52 | 1.72718 |
| $n_C$ | 656.27 | 1.72965 |
| $n_{C'}$ | 643.85 | 1.73034 |
| $n_{633}$ | 632.80 | 1.73099 |
| $n_D$ | 589.29 | 1.73387 |
| $n_d$ | 587.56 | 1.73400 |
| $n_e$ | 546.07 | 1.73742 |
| $n_F$ | 486.13 | 1.74403 |
| $n_{F'}$ | 479.99 | 1.74485 |
| $n_g$ | 435.84 | 1.75193 |
| $n_h$ | 404.66 | 1.75853 |
| $n_i$ | 365.01 | 1.76975 |

| 分散式の定数 Constants of dispersion formula | |
|---|---|
| $A_0$ | 2.9425645 |
| $A_1$ | $-1.3266554 \times 10^{-2}$ |
| $A_2$ | $2.3559223 \times 10^{-2}$ |
| $A_3$ | $-1.6399009 \times 10^{-4}$ |
| $A_4$ | $9.2370759 \times 10^{-5}$ |
| $A_5$ | $-4.8615982 \times 10^{-6}$ |

| 部分分散 Partial dispersions | |
|---|---|
| $n_C - n_t$ | 0.011579 |
| $n_d - n_C$ | 0.004351 |
| $n_F - n_d$ | 0.010026 |
| $n_g - n_F$ | 0.007907 |
| $n_{C'} - n_t$ | 0.012270 |
| $n_e - n_{C'}$ | 0.007084 |
| $n_{F'} - n_e$ | 0.007427 |
| $n_g - n_{F'}$ | 0.007082 |

| 部分分散比 Partial dispersion rates | | | |
|---|---|---|---|
| $P_{C\_t}$ | 0.8054 | $P'_{C'\_t}$ | 0.8456 |
| $P_{d\_C}$ | 0.3026 | $P'_{d\_C'}$ | 0.2522 |
| $P_{e\_d}$ | 0.2382 | $P'_{e\_d}$ | 0.2360 |
| $P_{F\_e}$ | 0.4592 | $P'_{F'\_e}$ | 0.5118 |
| $P_{g\_F}$ | 0.5500 | $P'_{g\_F'}$ | 0.4880 |
| $P_{h\_g}$ | 0.4589 | $P'_{h\_g}$ | 0.4546 |
| $P_{i\_h}$ | 0.7805 | $P'_{i\_h}$ | 0.7733 |

| 異常分散性 Anomalous dispersions | |
|---|---|
| $\Delta P_{C\_t}$ | 0.0209 |
| $\Delta P_{C\_A'}$ | 0.0052 |
| $\Delta P_{g\_d}$ | -0.0081 |
| $\Delta P_{g\_F}$ | -0.0063 |
| $\Delta P_{i\_g}$ | -0.0501 |

| 化学的性質 Chemical Properties | |
|---|---|
| $D_W$ | 1 |
| $D_A$ | 4 |
| $T_{Blue}$ | 3 |
| $D_{NaOH}$ | 1 |
| $D_{STPP}$ | 2 |
| $D_0$ | 2 |
| $D_H$ | |

| 熱的性質 Thermal Properties | |
|---|---|
| $T_g$ (℃) | 620 |
| $T_s$ (℃) | 657 |
| $T_{10^{14.5}}$ (℃) | 590 |
| $T_{10^{13}}$ (℃) | 612 |
| $T_{10^{7.6}}$ (℃) | 690 |
| $\alpha_{-30/+70℃}$ ($10^{-7}$/K) | 52 |
| $\alpha_{100/300℃}$ ($10^{-7}$/K) | 66 |
| λ [W/(m·K)] | 0.820 |
| $C_P$ [kJ/(kg·K)] | 0.528 |

| 機械的性質 Mechanical Properties | |
|---|---|
| $H_K$ | 765(7) |
| $F_A$ | 60 |
| E (GPa) | 113 |
| G (GPa) | 43.3 |
| $\mu$ | 0.299 |
| $\sigma_b$ (MPa) | |

| 屈折率の温度係数 (×$10^{-6}$/K) Thermal coefficient of refractive indices | | |
|---|---|---|
| (℃) | dn/dT (rel.) | dn/dT (abs.) |
| -40/-20 | 6.6 | 4.2 |
| -20/ 0 | 6.6 | 4.6 |
| 0/+20 | 6.6 | 5.0 |
| +20/+40 | 6.7 | 5.4 |
| +40/+60 | 6.9 | 5.7 |
| +60/+80 | 7.1 | 6.1 |

| 光弾性定数 Photoelastic Constant | |
|---|---|
| B ($10^{-12}$/Pa) | 2.06 |

| 比重 Specific Gravity | |
|---|---|
| d | 4.06 |

| 内部透過率 Internal Transmittance | | |
|---|---|---|
| λ (nm) | τ 5mm | τ 10mm |
| 1550 | 0.995 | 0.991 |
| 1500 | 0.995 | 0.991 |
| 1400 | 0.996 | 0.991 |
| 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 | 0.999 |
| 650 | 0.999 | 0.999 |
| 600 | 0.999 | 0.999 |
| 550 | 0.999 | 0.999 |
| 500 | 0.999 | 0.999 |
| 480 | 0.999 | 0.997 |
| 460 | 0.998 | 0.996 |
| 440 | 0.997 | 0.994 |
| 420 | 0.996 | 0.992 |
| 400 | 0.993 | 0.986 |
| 390 | 0.990 | 0.980 |
| 380 | 0.984 | 0.968 |
| 370 | 0.973 | 0.948 |
| 360 | 0.954 | 0.911 |
| 350 | 0.922 | 0.850 |
| 340 | 0.877 | 0.768 |
| 330 | 0.815 | 0.665 |
| 320 | 0.736 | 0.542 |
| 310 | 0.631 | 0.398 |
| 300 | 0.540 | 0.292 |
| 290 | 0.432 | 0.187 |
| 280 | 0.292 | 0.085 |

| 着色度 Coloration Code | |
|---|---|
| λ80(λ70)/λ5 | 370/290 |

| 着色度 (内部透過率) Coloration of Internal Transmittance | |
|---|---|
| λτ80/λτ5 | |

備考 Remarks

硝種対照表 Glass Cross Reference Index

| | HOYA | SCHOTT | OHARA | HIKARI | CDGM |
|---|---|---|---|---|---|
| Glass Type | TAC4 | | S-LAL59 | | |
| Code | 734-511 | | 734-515 | | |

作成 201104