

M-TAF31

801-455

$n_d = 1.80139$ $\nu_d = 45.45$ $n_F - n_C = 0.017632$
 $n_e = 1.80558$ $\nu_e = 45.20$ $n_{F'} - n_{C'} = 0.017821$

| 屈折率 Refractive Index | | |
|----------------------|----------------|---------|
| | λ (nm) | |
| n_t | 1013.98 | 1.78254 |
| n_s | 852.11 | 1.78703 |
| $n_{A'}$ | 768.19 | 1.79019 |
| n_r | 706.52 | 1.79313 |
| n_c | 656.27 | 1.79610 |
| $n_{c'}$ | 643.85 | 1.79694 |
| n_{633} | 632.80 | 1.79772 |
| n_D | 589.29 | 1.80123 |
| n_d | 587.56 | 1.80139 |
| n_e | 546.07 | 1.80558 |
| n_F | 486.13 | 1.81373 |
| $n_{F'}$ | 479.99 | 1.81476 |
| n_g | 435.84 | 1.82357 |
| n_h | 404.66 | 1.83186 |
| n_i | 365.01 | 1.84626 |

| 分散式の定数 Constants of dispersion formula | |
|--|-----------------------------|
| A_0 | 3.1643580 |
| A_1 | $-1.4033210 \times 10^{-2}$ |
| A_2 | 2.7670340×10^{-2} |
| A_3 | 6.4030250×10^{-4} |
| A_4 | $-6.3492340 \times 10^{-6}$ |
| A_5 | 1.6157440×10^{-6} |

| 部分分散 Partial dispersions | |
|--------------------------|----------|
| $n_C - n_t$ | 0.013563 |
| $n_d - n_C$ | 0.005286 |
| $n_F - n_d$ | 0.012346 |
| $n_g - n_F$ | 0.009840 |
| $n_{C'} - n_t$ | 0.014398 |
| $n_e - n_{C'}$ | 0.008647 |
| $n_{F'} - n_e$ | 0.009174 |
| $n_g - n_{F'}$ | 0.008816 |

| 部分分散比 Partial dispersion rates | | | |
|--------------------------------|--------|------------|--------|
| $P_{C,t}$ | 0.7692 | $P'_{C,t}$ | 0.8079 |
| $P_{d,C}$ | 0.2998 | $P'_{d,C}$ | 0.2498 |
| $P_{e,d}$ | 0.2380 | $P'_{e,d}$ | 0.2355 |
| $P_{F,e}$ | 0.4622 | $P'_{F,e}$ | 0.5148 |
| $P_{g,F}$ | 0.5581 | $P'_{g,F}$ | 0.4947 |
| $P_{h,g}$ | 0.4701 | $P'_{h,g}$ | 0.4651 |
| $P_{i,h}$ | 0.8168 | $P'_{i,h}$ | 0.8081 |

| 異常分散性 Anomalous dispersions | |
|-----------------------------|---------|
| $\Delta P_{C,t}$ | 0.0110 |
| $\Delta P_{C,A'}$ | 0.0031 |
| $\Delta P_{g,d}$ | -0.0099 |
| $\Delta P_{g,F}$ | -0.0083 |
| $\Delta P_{i,g}$ | -0.0522 |

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

| 熱的性質 Thermal Properties | |
|------------------------------------|-------|
| T_g (°C) | 594 |
| T_s (°C) | 637 |
| $T_{10^{14.5}}$ (°C) | 574 |
| $T_{10^{13}}$ (°C) | 589 |
| $T_{10^{7.6}}$ (°C) | 675 |
| $\alpha_{-30/+70}$ ($10^{-7}/K$) | 62 |
| $\alpha_{100/300}$ ($10^{-7}/K$) | 77 |
| λ [W/(m·K)] | 0.872 |
| C_p [kJ/(kg·K)] | 0.477 |

| 機械的性質 Mechanical Properties | |
|-----------------------------|---------|
| H_K | 695 (7) |
| F_A | 60 |
| E (GPa) | 123 |
| G (GPa) | 47.1 |
| μ | 0.299 |
| σ_b (MPa) | 96 |

| 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 | 6.1 | 3.7 |
| -20/ 0 | 6.2 | 4.1 |
| 0/+20 | 6.3 | 4.5 |
| +20/+40 | 6.4 | 4.8 |
| +40/+60 | 6.5 | 5.1 |
| +60/+80 | 6.6 | 5.4 |

| 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 | |

| 光弾性定数 Photoelastic Constant | |
|-----------------------------|------|
| B ($10^{-12}/Pa$) | 1.83 |

| その他の性質 Other Property | |
|-----------------------|------|
| 比重 d | 4.84 |

| 内部透過率 Internal Transmittance | | |
|------------------------------|------------|-------------|
| λ (nm) | τ 5mm | τ 10mm |
| 1550 | 0.999 | 0.999 |
| 1500 | 0.999 | 0.999 |
| 1400 | 0.999 | 0.999 |
| 1300 | 0.999 | 0.999 |
| 1200 | 0.999 | 0.999 |
| 1100 | 0.999 | 0.998 |
| 1060 | 0.999 | 0.998 |
| 1050 | 0.999 | 0.998 |
| 1000 | 0.999 | 0.998 |
| 950 | 0.999 | 0.998 |
| 900 | 0.998 | 0.997 |
| 850 | 0.999 | 0.997 |
| 830 | 0.999 | 0.998 |
| 800 | 0.998 | 0.996 |
| 780 | 0.997 | 0.995 |
| 750 | 0.998 | 0.995 |
| 700 | 0.999 | 0.999 |
| 650 | 0.999 | 0.999 |
| 600 | 0.999 | 0.999 |
| 550 | 0.999 | 0.999 |
| 500 | 0.999 | 0.998 |
| 480 | 0.997 | 0.994 |
| 460 | 0.995 | 0.991 |
| 440 | 0.993 | 0.986 |
| 420 | 0.989 | 0.979 |
| 400 | 0.982 | 0.964 |
| 390 | 0.974 | 0.948 |
| 380 | 0.960 | 0.922 |
| 370 | 0.936 | 0.876 |
| 360 | 0.895 | 0.801 |
| 350 | 0.831 | 0.690 |
| 340 | 0.745 | 0.555 |
| 330 | 0.639 | 0.409 |
| 320 | 0.508 | 0.258 |
| 310 | 0.357 | 0.128 |
| 300 | 0.268 | 0.072 |
| 290 | 0.179 | 0.032 |
| 280 | | |

| 着色度 Coloring | |
|--|---------|
| $\lambda_{80}(\lambda_{70})/\lambda_5$ | 390/295 |
| $\lambda_{\tau 0.8}$ | 360 |
| 色度 (D_{65}) Chromaticity coordinates | |
| x | 0.313 |
| y | 0.331 |

| 備考 Remarks | |
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| 作成 201004 | |
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