# Datenblatt

SCHOTT

## N-PSK3
## 552635.291

| | | |
|---|---|---|
| $n_d$ = 1,55232 | $\nu_d$ = 63,46 | $n_F - n_C$ = 0,008704 |
| $n_e$ = 1,55440 | $\nu_e$ = 63,23 | $n_{F'} - n_{C'}$ = 0,008767 |

| Brechzahlen | | |
|---|---|---|
| | λ [nm] | |
| $n_{2325,4}$ | 2325,4 | 1,52375 |
| $n_{1970,1}$ | 1970,1 | 1,52954 |
| $n_{1529,6}$ | 1529,6 | 1,53558 |
| $n_{1060,0}$ | 1060,0 | 1,54154 |
| $n_t$ | 1014,0 | 1,54218 |
| $n_s$ | 852,1 | 1,54482 |
| $n_r$ | 706,5 | 1,54811 |
| $n_C$ | 656,3 | 1,54965 |
| $n_{C'}$ | 643,8 | 1,55008 |
| $n_{632,8}$ | 632,8 | 1,55048 |
| $n_D$ | 589,3 | 1,55224 |
| $n_d$ | 587,6 | 1,55232 |
| $n_e$ | 546,1 | 1,55440 |
| $n_F$ | 486,1 | 1,55835 |
| $n_{F'}$ | 480,0 | 1,55885 |
| $n_g$ | 435,8 | 1,56302 |
| $n_h$ | 404,7 | 1,56688 |
| $n_i$ | 365,0 | 1,57342 |
| $n_{334,1}$ | 334,1 | 1,58041 |
| $n_{312,6}$ | 312,6 | 1,58679 |
| $n_{296,7}$ | 296,7 | |
| $n_{280,4}$ | 280,4 | |
| $n_{248,3}$ | 248,3 | |

| Konstanten der Dispersionsformel | |
|---|---|
| $B_1$ | 0,88727211 |
| $B_2$ | 0,489592425 |
| $B_3$ | 1,048652960 |
| $C_1$ | 0,00469824067 |
| $C_2$ | 0,0161818463 |
| $C_3$ | 104,3749750 |

| Konstanten der Formel für dn/dT | |
|---|---|
| $D_0$ | 2,03E-06 |
| $D_1$ | 1,19E-08 |
| $D_2$ | 2,46E-11 |
| $E_0$ | 3,14E-07 |
| $E_1$ | 2,45E-10 |
| $\lambda_{TK}$ [µm] | 0,235 |

| Reintransmissionsgrad $\tau_i$ | | |
|---|---|---|
| λ [nm] | $\tau_i$ [10mm] | $\tau_i$ [25mm] |
| **2500** | 0,650 | 0,340 |
| **2325** | 0,810 | 0,590 |
| **1970** | 0,950 | 0,880 |
| **1530** | 0,991 | 0,978 |
| **1060** | 0,999 | 0,997 |
| **700** | 0,998 | 0,995 |
| **660** | 0,997 | 0,993 |
| **620** | 0,997 | 0,992 |
| **580** | 0,997 | 0,993 |
| **546** | 0,997 | 0,993 |
| **500** | 0,996 | 0,990 |
| **460** | 0,995 | 0,987 |
| **436** | 0,994 | 0,986 |
| **420** | 0,994 | 0,986 |
| **405** | 0,995 | 0,987 |
| **400** | 0,994 | 0,986 |
| **390** | 0,993 | 0,983 |
| **380** | 0,991 | 0,977 |
| **370** | 0,988 | 0,971 |
| **365** | 0,985 | 0,964 |
| **350** | 0,967 | 0,920 |
| **334** | 0,910 | 0,800 |
| **320** | 0,770 | 0,520 |
| **310** | 0,580 | 0,260 |
| **300** | 0,320 | 0,060 |
| **290** | 0,120 | |
| **280** | 0,030 | |
| **270** | | |
| **260** | | |
| **250** | | |
| | | |

| Farbcode | |
|---|---|
| λ80 / λ5 | 33/28 |

(*= λ70/λ5)

| Bemerkungen |
|---|
| |

| Temperaturkoeffizienten der Lichtbrechung | | | | | | |
|---|---|---|---|---|---|---|
| | $\Delta n_{rel}/\Delta T$ [$10^{-6}$/K] | | | $\Delta n_{abs}/\Delta T$ [$10^{-6}$/K] | | |
| **[°C]** | **1060.0** | **e** | **g** | **1060.0** | **e** | **g** |
| **-40/-20** | 2,6 | 3,1 | 3,6 | 0,6 | 1,0 | 1,5 |
| **+20/+40** | 2,5 | 3,0 | 3,5 | 1,2 | 1,6 | 2,1 |
| **+60/+80** | 2,7 | 3,2 | 3,8 | 1,7 | 2,2 | 2,7 |

| Relative Teildispersionen | |
|---|---|
| $P_{s,t}$ | 0,3023 |
| $P_{C,s}$ | 0,5555 |
| $P_{d,C}$ | 0,3069 |
| $P_{e,d}$ | 0,2386 |
| $P_{g,F}$ | 0,5365 |
| $P_{i,h}$ | 0,7509 |
| | |
| $P'_{s,t}$ | 0,3001 |
| $P'_{C',s}$ | 0,6002 |
| $P'_{d,C'}$ | 0,2559 |
| $P'_{e,d}$ | 0,2369 |
| $P'_{g,F'}$ | 0,4767 |
| $P'_{i,h}$ | 0,7454 |

| Abweichung relativer Teildispersionen ΔP von der "Normalgeraden" | |
|---|---|
| $\Delta P_{C,t}$ | 0,0118 |
| $\Delta P_{C,s}$ | 0,0047 |
| $\Delta P_{F,e}$ | -0,0005 |
| $\Delta P_{g,F}$ | -0,0005 |
| $\Delta P_{i,g}$ | 0,0016 |

| Sonstige Eigenschaften | |
|---|---|
| $\alpha_{-30/+70°C}$ [$10^{-6}$/K] | 6,2 |
| $\alpha_{+20/+300°C}$ [$10^{-6}$/K] | 7,3 |
| $T_g$ [°C] | 599 |
| $T_{10^{13}}$ [°C] | 597 |
| $T_{10^{7.6}}$ [°C] | 736 |
| $c_p$ [J/(g•K)] | 0,682 |
| λ [W/(m•K)] | 0,990 |
| | |
| ρ [g/cm$^3$] | 2,91 |
| E [$10^3$ N/mm$^2$] | 84 |
| µ | 0,226 |
| K [$10^{-6}$ mm$^2$/N] | 2,48 |
| $HK_{0.1/20}$ | 630 |
| HG | 2 |
| | |
| | |
| | |
| CR | 3 |
| FR | 0 |
| SR | 2,2 |
| AR | 2 |
| PR | 2 |
| | |
| | |