# Datenblatt

SCHOTT

## N-BAK2
## 540597.286

| | | |
|---|---|---|
| $n_d$ = 1,53996 | $\nu_d$ = 59,71 | $n_F - n_C$ = 0,009043 |
| $n_e$ = 1,54212 | $\nu_e$ = 59,44 | $n_{F'} - n_{C'}$ = 0,009120 |

### Brechzahlen

| | λ [nm] | |
|---|---|---|
| $n_{2325,4}$ | 2325,4 | 1,51387 |
| $n_{1970,1}$ | 1970,1 | 1,51871 |
| $n_{1529,6}$ | 1529,6 | 1,52385 |
| $n_{1060,0}$ | 1060,0 | 1,52919 |
| $n_t$ | 1014,0 | 1,52980 |
| $n_s$ | 852,1 | 1,53234 |
| $n_r$ | 706,5 | 1,53564 |
| $n_C$ | 656,3 | 1,53721 |
| $n_{C'}$ | 643,8 | 1,53765 |
| $n_{632,8}$ | 632,8 | 1,53806 |
| $n_D$ | 589,3 | 1,53988 |
| $n_d$ | 587,6 | 1,53996 |
| $n_e$ | 546,1 | 1,54212 |
| $n_F$ | 486,1 | 1,54625 |
| $n_{F'}$ | 480,0 | 1,54677 |
| $n_g$ | 435,8 | 1,55117 |
| $n_h$ | 404,7 | 1,55525 |
| $n_i$ | 365,0 | 1,56221 |
| $n_{334,1}$ | 334,1 | 1,56971 |
| $n_{312,6}$ | 312,6 | 1,57660 |
| $n_{296,7}$ | 296,7 | 1,58287 |
| $n_{280,4}$ | 280,4 | |
| $n_{248,3}$ | 248,3 | |

### Konstanten der Dispersionsformel

| | |
|---|---|
| $B_1$ | 1,01662154 |
| $B_2$ | 0,319903051 |
| $B_3$ | 0,937232995 |
| $C_1$ | 0,00592383763 |
| $C_2$ | 0,0203828415 |
| $C_3$ | 113,118417 |

### Konstanten der Formel für dn/dT

| | |
|---|---|
| $D_0$ | $-1{,}45 \cdot 10^{-6}$ |
| $D_1$ | $1{,}10 \cdot 10^{-8}$ |
| $D_2$ | $4{,}89 \cdot 10^{-12}$ |
| $E_0$ | $5{,}16 \cdot 10^{-7}$ |
| $E_1$ | $3{,}05 \cdot 10^{-10}$ |
| $\lambda_{TK}$ [µm] | 0,164 |

### Reintransmissionsgrad $\tau_i$

| λ [nm] | $\tau_i$ (10mm) | $\tau_i$ (25mm) |
|---|---|---|
| **2500** | 0,758 | 0,500 |
| **2325** | 0,831 | 0,630 |
| **1970** | 0,937 | 0,850 |
| **1530** | 0,994 | 0,984 |
| **1060** | 0,999 | 0,997 |
| **700** | 0,998 | 0,996 |
| **660** | 0,998 | 0,995 |
| **620** | 0,998 | 0,994 |
| **580** | 0,998 | 0,995 |
| **546** | 0,998 | 0,995 |
| **500** | 0,998 | 0,994 |
| **460** | 0,997 | 0,992 |
| **436** | 0,997 | 0,992 |
| **420** | 0,997 | 0,993 |
| **405** | 0,997 | 0,993 |
| **400** | 0,997 | 0,993 |
| **390** | 0,997 | 0,992 |
| **380** | 0,996 | 0,990 |
| **370** | 0,996 | 0,989 |
| **365** | 0,994 | 0,986 |
| **350** | 0,988 | 0,971 |
| **334** | 0,963 | 0,910 |
| **320** | 0,867 | 0,700 |
| **310** | 0,693 | 0,400 |
| **300** | 0,398 | 0,100 |
| **290** | 0,158 | |
| **280** | 0,040 | |
| **270** | | |
| **260** | | |
| **250** | | |
| | | |
| | | |

### Farbcode

| | |
|---|---|
| $\lambda_{80}/\lambda_5$ | 32/28 |
| (*= $\lambda_{70}/\lambda_5$) | |

### Bemerkungen

### Relative Teildispersionen

| | |
|---|---|
| $P_{s,t}$ | 0,2810 |
| $P_{C,s}$ | 0,5382 |
| $P_{d,C}$ | 0,3042 |
| $P_{e,d}$ | 0,2385 |
| $P_{g,F}$ | 0,5437 |
| $P_{i,h}$ | 0,7695 |
| | |
| $P'_{s,t}$ | 0,2787 |
| $P'_{C',s}$ | 0,5817 |
| $P'_{d,C'}$ | 0,2536 |
| $P'_{e,d}$ | 0,2364 |
| $P'_{g,F'}$ | 0,4826 |
| $P'_{i,h}$ | 0,7630 |

### Abweichungen rel. Teildispersionen ΔP von der "Normalgeraden"

| | |
|---|---|
| $\Delta P_{C,t}$ | -0,0089 |
| $\Delta P_{C,s}$ | -0,0039 |
| $\Delta P_{F,e}$ | 0,0004 |
| $\Delta P_{g,F}$ | 0,0004 |
| $\Delta P_{i,g}$ | -0,0027 |

### Sonstige Eigenschaften

| | |
|---|---|
| $\alpha_{-30/+70°C}$ [$10^{-6}$/K] | 8,0 |
| $\alpha_{+20/+300°C}$ [$10^{-6}$/K] | 9,0 |
| $T_g$ [°C] | 554 |
| $T_{10}^{13,0}$ [°C] | 550 |
| $T_{10}^{7,6}$ [°C] | 727 |
| $c_p$ [J/(g·K)] | 0,690 |
| λ [W/(m·K)] | 0,920 |
| | |
| ρ [g/cm$^3$] | 2,86 |
| **E** [$10^3$ N/mm$^2$] | 71 |
| µ | 0,233 |
| **K** [$10^{-6}$ mm$^2$/N] | 2,60 |
| **HK**$_{0,1/20}$ | 530 |
| **HG** | 2 |
| | |
| | |
| | |
| **CR** | 2 |
| **FR** | 0 |
| **SR** | 1 |
| **AR** | 1 |
| **PR** | 2.3 |
| | |
| | |
| | |

### 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** | 1,1 | 1,8 | 2,3 | -0,9 | -0,3 | 0,2 |
| **+20/ +40** | 1,0 | 1,7 | 2,3 | -0,3 | 0,3 | 0,9 |
| **+60/ +80** | 1,1 | 1,8 | 2,4 | 0,1 | 0,8 | 1,4 |