

## NG3

| Optische Eigenschaften         |                            |
|--------------------------------|----------------------------|
| <b>Reflexionsfaktor</b>        |                            |
| $P_d = 0,921$                  |                            |
| <b>Spektrale Garantiewerte</b> |                            |
| $\tau_i$ (405 nm)              | = 0,06 ± 0,02              |
| $\tau_i$ (546 nm)              | = 0,1 ± 0,02               |
| $\tau_i$ (694 nm)              | = 0,17 ± 0,03              |
| <b>Brechungsindizes</b>        |                            |
| $n_F$ (486 nm)                 | = 1,514                    |
| $n_e$ (546 nm)                 | = 1,509                    |
| $n_d$ (587,6 nm)               | = 1,507                    |
| <b>Sellmeierkoeffizienten</b>  |                            |
| gültig von 440 nm bis 1550 nm  |                            |
| $B_1$                          | 0,8995                     |
| $B_2$                          | 0,3364                     |
| $B_3$                          | 32,4433                    |
| $C_1$                          | 9,703E-03 $\mu\text{m}^2$  |
| $C_2$                          | 1,2385E-02 $\mu\text{m}^2$ |
| $C_3$                          | 4153,754 $\mu\text{m}^2$   |
| <b>Innere Qualität</b>         |                            |
| Blasenklasse                   | 2                          |

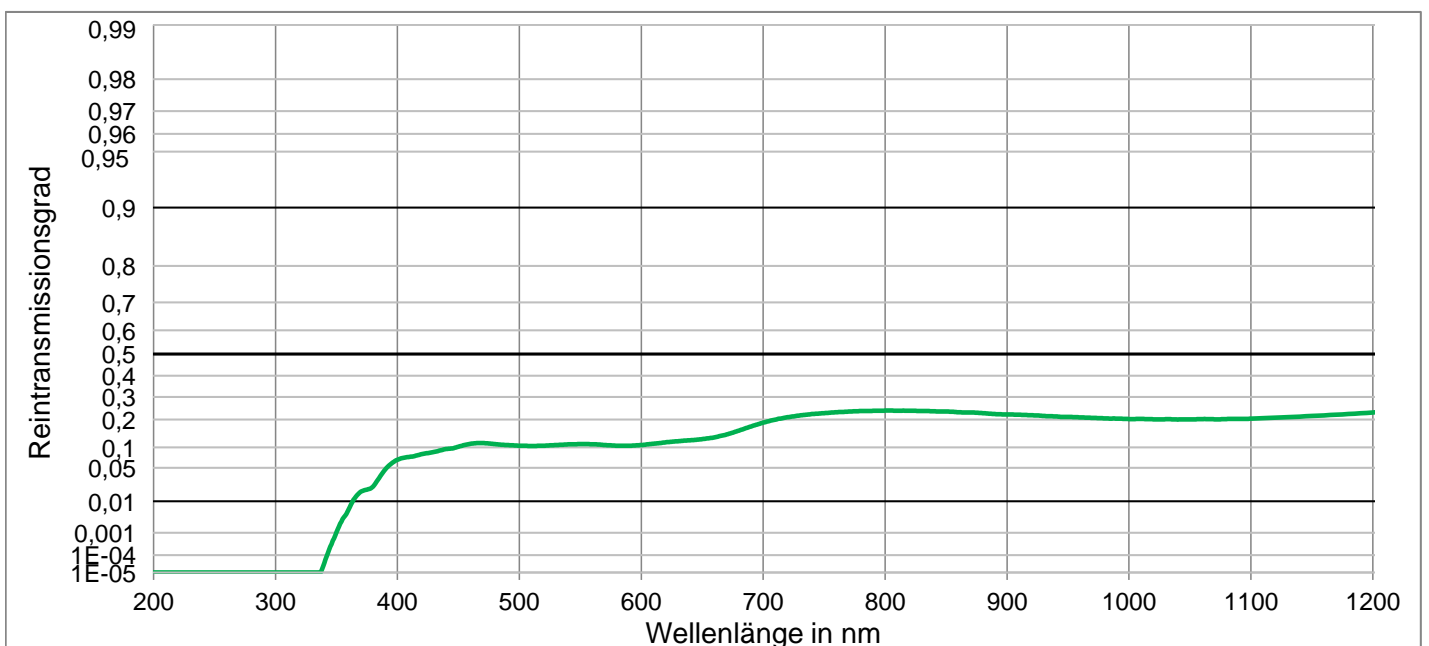
| Mechanische Eigenschaften    |  |
|------------------------------|--|
| <b>Referenzdicke</b>         |  |
| $d = 1,00 \text{ mm}$        |  |
| <b>Dichte</b>                |  |
| $\rho = 2,44 \text{ g/cm}^3$ |  |
| <b>Knoophärte</b>            |  |
| $HK[0.1/20] = 443$           |  |

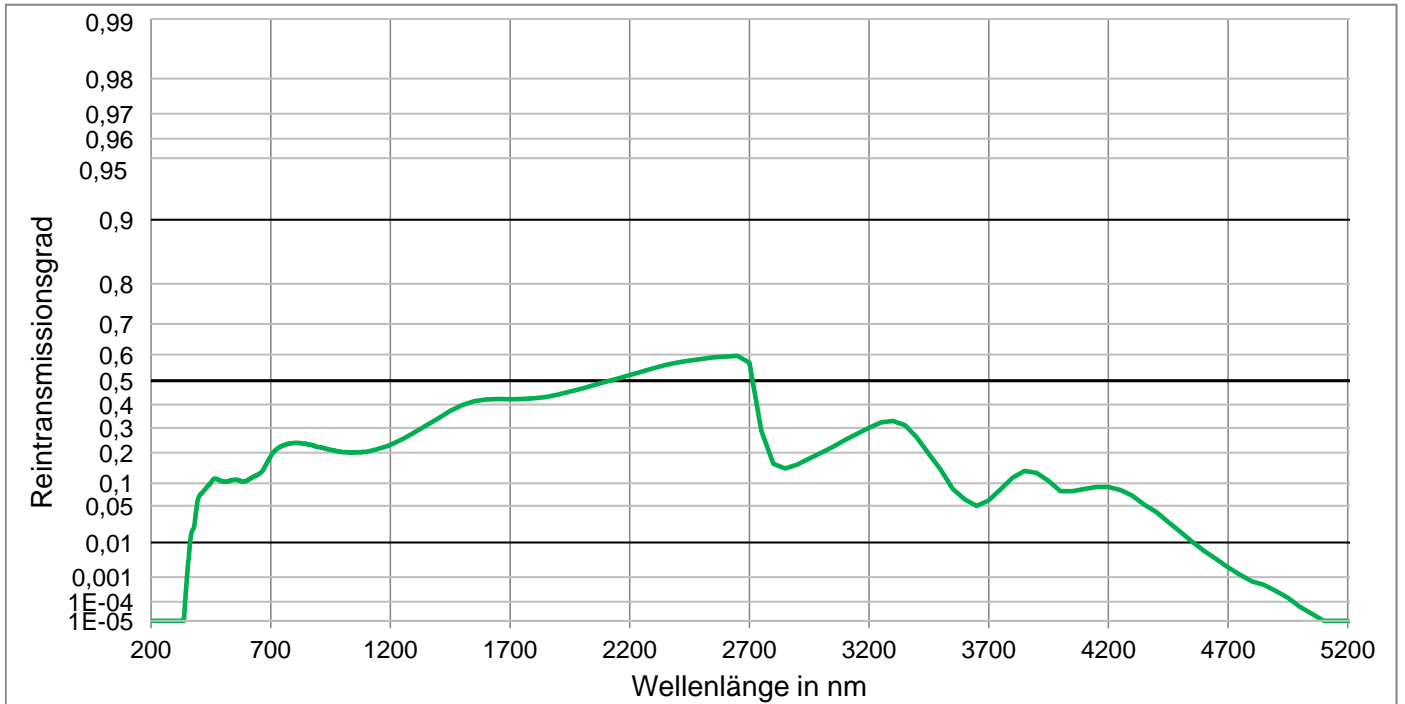
| Thermische Eigenschaften                                |       |
|---|-------|
| <b>Transformationstemperatur</b>                        |       |
| $T_g = 462 \text{ }^\circ\text{C}$                      |       |
| <b>Wärmeausdehnung in <math>10^{-6}/\text{K}</math></b> |       |
| $\alpha$ (-30°C/+70°C)                                  | = 6,5 |
| $\alpha$ (20°C/300°C)                                   | = 7,3 |

| Chemische Eigenschaften                                      |       |
|--|-------|
| <b>Chemische Haltbarkeit</b>                                 |       |
| FR Klasse  | = 1   |
| SR Klasse  | = 2.2 |
| AR Klasse  | = 1   |
| <b>Feuchtebeständigkeit</b>                                  |       |
| Resistentes Glas   |       |
| siehe Pocketkatalog "Optisches Filterglas 2020", Kapitel 5.5 |       |

| Farbmetrische Eigenschaften |             |      |      |      |
|-----------------------------|-------------|------|------|------|
|                             |             | 1 mm | 2 mm | 3 mm |
| Illuminant D65              | x           |      |      |      |
|                             | y           |      |      |      |
|                             | Y           |      |      |      |
|                             | $\lambda_d$ |      |      |      |
|                             | $P_e$       |      |      |      |
| Illuminant A                | x           |      |      |      |
|                             | y           |      |      |      |
|                             | Y           |      |      |      |
|                             | $\lambda_d$ |      |      |      |
|                             | $P_e$       |      |      |      |

| Bemerkungen   |  |
|---|--|
| Ionengefärbtes Glas   |  |
| Neutraldichtefilter   |  |
| DIN 58131   |  |
| <b>Disclaimer</b>   |  |
| Alle Angaben ohne Toleranzen sind als Richtwerte zu betrachten. |  |





**Reintransmissionsgrad  $\tau_i$  bei der Referenzdicke**  
 Die Reintransmissionsgrade, tabellarisch und graphisch, sind als Richtwerte zu verstehen.

| $\lambda$ /nm | $\tau_i$    | $\lambda$ /nm | $\tau_i$  | $\lambda$ /nm | $\tau_i$  | $\lambda$ /nm | $\tau_i$  | $\lambda$ /nm | $\tau_i$  | $\lambda$ /nm | $\tau_i$    |
|---------------|-------------|---------------|-----------|---------------|-----------|---------------|-----------|---------------|-----------|---------------|-------------|
| 200           | < 1,0E-05   | 500           | 1,050E-01 | 800           | 2,380E-01 | 1100          | 2,034E-01 | 2200          | 5,225E-01 | 3700          | 6,000E-02   |
| 210           | < 1,0E-05   | 510           | 1,043E-01 | 810           | 2,375E-01 | 1110          | 2,054E-01 | 2250          | 5,360E-01 | 3750          | 8,480E-02   |
| 220           | < 1,0E-05   | 520           | 1,050E-01 | 820           | 2,370E-01 | 1120          | 2,077E-01 | 2300          | 5,500E-01 | 3800          | 1,156E-01   |
| 230           | < 1,0E-05   | 530           | 1,070E-01 | 830           | 2,360E-01 | 1130          | 2,100E-01 | 2350          | 5,617E-01 | 3850          | 1,363E-01   |
| 240           | < 1,0E-05   | 540           | 1,090E-01 | 840           | 2,350E-01 | 1140          | 2,124E-01 | 2400          | 5,711E-01 | 3900          | 1,300E-01   |
| 250           | < 1,0E-05   | 550           | 1,100E-01 | 850           | 2,340E-01 | 1150          | 2,149E-01 | 2450          | 5,786E-01 | 3950          | 1,068E-01   |
| 260           | < 1,0E-05   | 560           | 1,095E-01 | 860           | 2,310E-01 | 1160          | 2,175E-01 | 2500          | 5,837E-01 | 4000          | 8,000E-02   |
| 270           | < 1,0E-05   | 570           | 1,071E-01 | 870           | 2,300E-01 | 1170          | 2,202E-01 | 2550          | 5,900E-01 | 4050          | 8,000E-02   |
| 280           | < 1,0E-05   | 580           | 1,050E-01 | 880           | 2,270E-01 | 1180          | 2,232E-01 | 2600          | 5,925E-01 | 4100          | 8,511E-02   |
| 290           | < 1,0E-05   | 590           | 1,049E-01 | 890           | 2,230E-01 | 1190          | 2,263E-01 | 2650          | 5,956E-01 | 4150          | 9,016E-02   |
| 300           | < 1,0E-05   | 600           | 1,070E-01 | 900           | 2,210E-01 | 1200          | 2,300E-01 | 2700          | 5,700E-01 | 4200          | 9,000E-02   |
| 310           | < 1,0E-05   | 610           | 1,110E-01 | 910           | 2,200E-01 | 1250          | 2,532E-01 | 2750          | 2,880E-01 | 4250          | 8,318E-02   |
| 320           | < 1,000E-05 | 620           | 1,157E-01 | 920           | 2,180E-01 | 1300          | 2,800E-01 | 2800          | 1,600E-01 | 4300          | 7,000E-02   |
| 330           | < 1,000E-05 | 630           | 1,192E-01 | 930           | 2,150E-01 | 1350          | 3,110E-01 | 2850          | 1,439E-01 | 4350          | 5,176E-02   |
| 340           | 3,855E-05   | 640           | 1,222E-01 | 940           | 2,130E-01 | 1400          | 3,400E-01 | 2900          | 1,574E-01 | 4400          | 4,000E-02   |
| 350           | 1,040E-03   | 650           | 1,260E-01 | 950           | 2,110E-01 | 1450          | 3,732E-01 | 2950          | 1,784E-01 | 4450          | 2,679E-02   |
| 360           | 5,900E-03   | 660           | 1,319E-01 | 960           | 2,090E-01 | 1500          | 3,970E-01 | 3000          | 2,000E-01 | 4500          | 1,726E-02   |
| 370           | 1,704E-02   | 670           | 1,420E-01 | 970           | 2,070E-01 | 1550          | 4,147E-01 | 3050          | 2,224E-01 | 4550          | 1,050E-02   |
| 380           | 2,199E-02   | 680           | 1,560E-01 | 980           | 2,050E-01 | 1600          | 4,216E-01 | 3100          | 2,500E-01 | 4600          | 6,237E-03   |
| 390           | 4,696E-02   | 690           | 1,720E-01 | 990           | 2,040E-01 | 1650          | 4,241E-01 | 3150          | 2,752E-01 | 4650          | 3,750E-03   |
| 400           | 6,691E-02   | 700           | 1,871E-01 | 1000          | 2,020E-01 | 1700          | 4,230E-01 | 3200          | 3,000E-01 | 4700          | 2,128E-03   |
| 410           | 7,402E-02   | 710           | 2,000E-01 | 1010          | 2,022E-01 | 1750          | 4,241E-01 | 3250          | 3,236E-01 | 4750          | 1,222E-03   |
| 420           | 8,105E-02   | 720           | 2,094E-01 | 1020          | 2,010E-01 | 1800          | 4,273E-01 | 3300          | 3,300E-01 | 4800          | 7,096E-04   |
| 430           | 8,703E-02   | 730           | 2,170E-01 | 1030          | 2,012E-01 | 1850          | 4,325E-01 | 3350          | 3,116E-01 | 4850          | 5,200E-04   |
| 440           | 9,500E-02   | 740           | 2,230E-01 | 1040          | 2,000E-01 | 1900          | 4,425E-01 | 3400          | 2,600E-01 | 4900          | 2,985E-04   |
| 450           | 1,019E-01   | 750           | 2,270E-01 | 1050          | 2,010E-01 | 1950          | 4,546E-01 | 3450          | 1,948E-01 | 4950          | 1,528E-04   |
| 460           | 1,110E-01   | 760           | 2,310E-01 | 1060          | 2,020E-01 | 2000          | 4,674E-01 | 3500          | 1,400E-01 | 5000          | 5,649E-05   |
| 470           | 1,130E-01   | 770           | 2,340E-01 | 1070          | 2,010E-01 | 2050          | 4,813E-01 | 3550          | 8,540E-02 | 5050          | 2,518E-05   |
| 480           | 1,100E-01   | 780           | 2,360E-01 | 1080          | 2,020E-01 | 2100          | 4,957E-01 | 3600          | 6,220E-02 | 5100          | < 1,000E-05 |
| 490           | 1,070E-01   | 790           | 2,370E-01 | 1090          | 2,029E-01 | 2150          | 5,090E-01 | 3650          | 4,960E-02 | 5150          | < 1,000E-05 |