


## BG67

| Optical properties           |                            |
|------------------------------|----------------------------|
| Reflection factor            |                            |
| $P_d = 0,913$                |                            |
| Spectral values guaranteed   |                            |
| $\tau_i$ (450 nm)            | $\geq 0,7$                 |
| $\tau_i$ (500 nm)            | $\geq 0,8$                 |
| $\tau_i$ (550 nm)            | $\geq 0,65$                |
| $\tau_i$ (600 nm)            | $\leq 0,19$                |
| Refractive indices           |                            |
| $n_F$ (486 nm)               | = 1,55                     |
| $n_e$ (546 nm)               | = 1,54                     |
| $n_d$ (587,6 nm)             | = 1,54                     |
| Sellmeier coefficients       |                            |
| valid from 400 nm to 1550 nm |                            |
| $B_1$                        | 0,7165                     |
| $B_2$                        | 0,6218                     |
| $B_3$                        | 0,6042                     |
| $C_1$                        | 1,764E-09 $\mu\text{m}^2$  |
| $C_2$                        | 1,9422E-02 $\mu\text{m}^2$ |
| $C_3$                        | 100,000 $\mu\text{m}^2$    |
| Internal quality             |                            |
| Bubble class                 | 2                          |

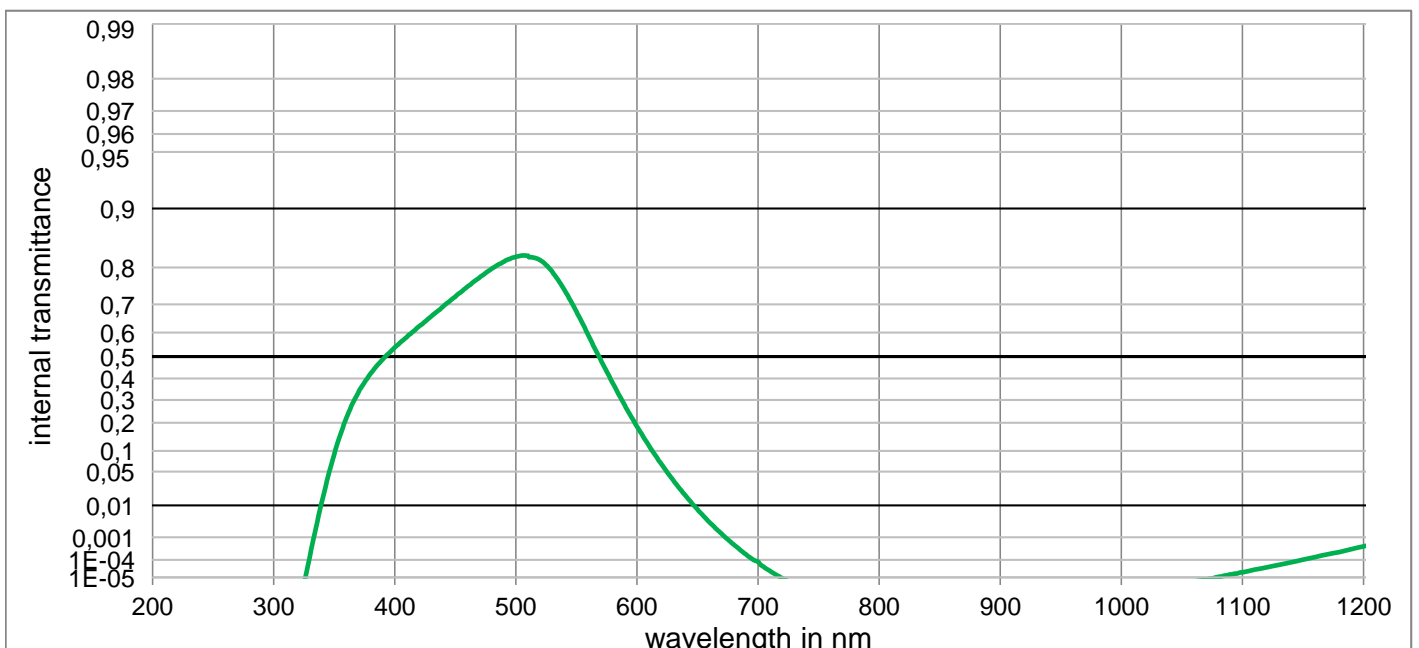
| Mechanical properties        |  |
|------------------------------|--|
| Reference thickness          |  |
| $d = 1,00 \text{ mm}$        |  |
| Density                      |  |
| $\rho = 2,85 \text{ g/cm}^3$ |  |
| Knoop hardness               |  |
| HK[0.1/20] = 364             |  |

| Thermal properties                                 |        |
|--|--------|
| Transformation temperature                         |        |
| $T_g = 390 \text{ }^\circ\text{C}$                 |        |
| Thermal expansion in $10^{-6}/\text{K}$            |        |
| $\alpha$ (-30 $^\circ\text{C}/+70^\circ\text{C}$ ) | = 11,8 |
| $\alpha$ (20 $^\circ\text{C}/300^\circ\text{C}$ )  | = 13,7 |

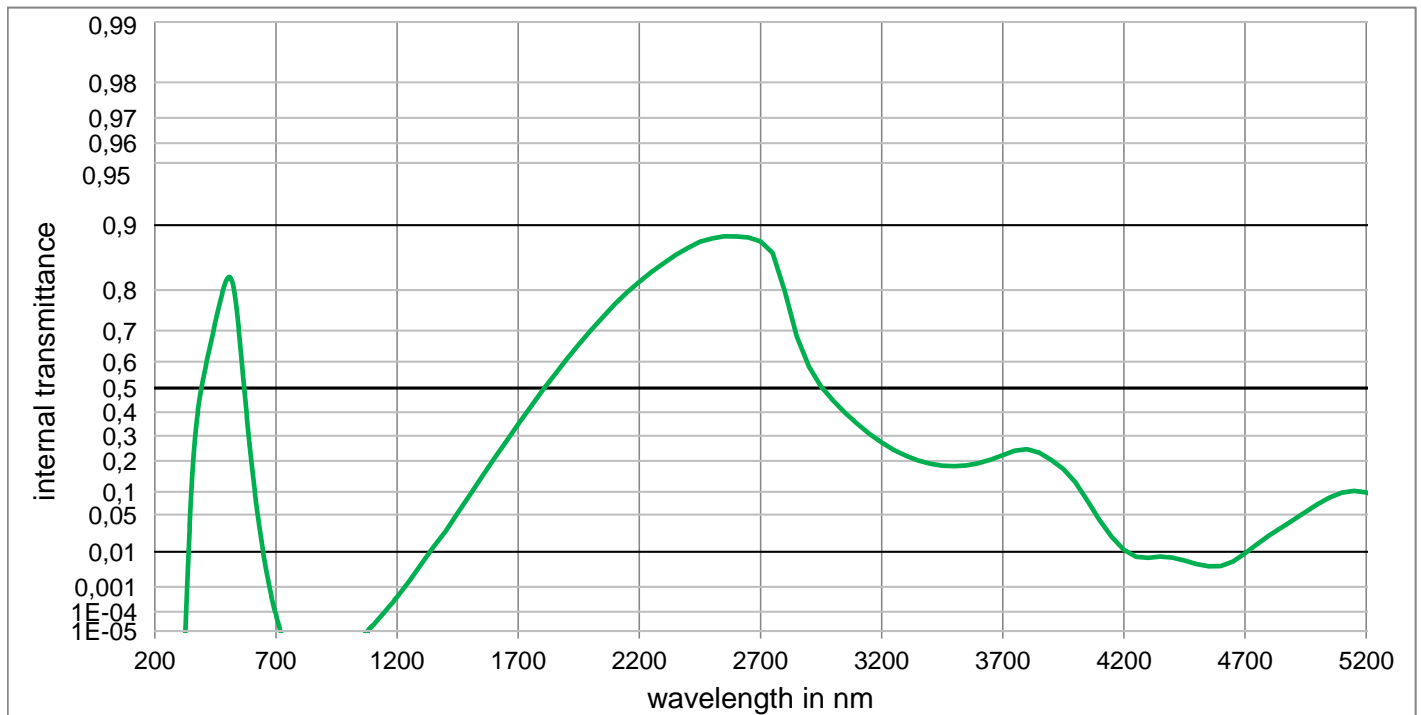
| Chemical properties   |        |
|---|--------|
| Chemical resistance   |        |
| FR class  | = 1    |
| SR class  | = 52.3 |
| AR class  | = 3.3  |
|  <p>Long-term changes in the polished surface are possible under some circumstances.</p> |        |

| Colorimetric properties |             |        |        |        |
|-------------------------|-------------|--------|--------|--------|
|                         |             | 1 mm   | 2 mm   | 3 mm   |
| Illuminant D65          | x           | 0,209  | 0,176  | 0,159  |
|                         | y           | 0,321  | 0,317  | 0,318  |
|                         | Y           | 49,7   | 33,4   | 24,0   |
|                         | $\lambda_d$ | 491 nm | 490 nm | 491 nm |
|                         | $P_e$       | 0,383  | 0,508  | 0,569  |
| Illuminant A            | x           | 0,285  | 0,222  | 0,189  |
|                         | y           | 0,450  | 0,456  | 0,457  |
|                         | Y           | 40,9   | 25,4   | 17,5   |
|                         | $\lambda_d$ | 499 nm | 498 nm | 498 nm |
|                         | $P_e$       | 0,372  | 0,519  | 0,595  |

| Notes   |  |
|---|--|
| Ionically colored glass   |  |
| Bandpass filter   |  |
| NIR cutoff filter   |  |
| $\lambda_{50\%}(d=0.145\text{mm}) @ 641 \text{ nm}$                     |  |
| DIN 58131   |  |
| Disclaimer  |  |
| All data without tolerances are to be understood to be reference values |  |



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**Internal transmittance  $\tau_i$  at reference thickness**  
 The internal transmittance values, tabulated and graphically represented, are reference values only

| $\lambda$ /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           | 8,231E-01   | 800           | < 1,000E-05 | 1100          | 2,071E-05 | 2200          | 8,164E-01 | 3700          | 2,218E-01 |
| 210           | < 1,0E-05   | 510           | 8,251E-01   | 810           | < 1,000E-05 | 1110          | 2,923E-05 | 2250          | 8,345E-01 | 3750          | 2,392E-01 |
| 220           | < 1,0E-05   | 520           | 8,162E-01   | 820           | < 1,000E-05 | 1120          | 3,952E-05 | 2300          | 8,488E-01 | 3800          | 2,455E-01 |
| 230           | < 1,0E-05   | 530           | 7,899E-01   | 830           | < 1,000E-05 | 1130          | 5,505E-05 | 2350          | 8,619E-01 | 3850          | 2,318E-01 |
| 240           | < 1,0E-05   | 540           | 7,437E-01   | 840           | < 1,000E-05 | 1140          | 7,511E-05 | 2400          | 8,717E-01 | 3900          | 2,036E-01 |
| 250           | < 1,0E-05   | 550           | 6,764E-01   | 850           | < 1,000E-05 | 1150          | 1,020E-04 | 2450          | 8,803E-01 | 3950          | 1,699E-01 |
| 260           | < 1,0E-05   | 560           | 5,876E-01   | 860           | < 1,000E-05 | 1160          | 1,362E-04 | 2500          | 8,844E-01 | 4000          | 1,268E-01 |
| 270           | < 1,0E-05   | 570           | 4,859E-01   | 870           | < 1,000E-05 | 1170          | 1,856E-04 | 2550          | 8,871E-01 | 4050          | 7,709E-02 |
| 280           | < 1,0E-05   | 580           | 3,787E-01   | 880           | < 1,000E-05 | 1180          | 2,399E-04 | 2600          | 8,867E-01 | 4100          | 4,066E-02 |
| 290           | < 1,0E-05   | 590           | 2,747E-01   | 890           | < 1,000E-05 | 1190          | 3,271E-04 | 2650          | 8,855E-01 | 4150          | 2,051E-02 |
| 300           | < 1,0E-05   | 600           | 1,851E-01   | 900           | < 1,000E-05 | 1200          | 4,258E-04 | 2700          | 8,805E-01 | 4200          | 1,109E-02 |
| 310           | < 1,0E-05   | 610           | 1,152E-01   | 910           | < 1,000E-05 | 1250          | 1,575E-03 | 2750          | 8,647E-01 | 4250          | 7,611E-03 |
| 320           | < 1,000E-05 | 620           | 6,630E-02   | 920           | < 1,000E-05 | 1300          | 4,935E-03 | 2800          | 7,974E-01 | 4300          | 7,207E-03 |
| 330           | 1,702E-04   | 630           | 3,513E-02   | 930           | < 1,000E-05 | 1350          | 1,287E-02 | 2850          | 6,825E-01 | 4350          | 7,703E-03 |
| 340           | 1,300E-02   | 640           | 1,721E-02   | 940           | < 1,000E-05 | 1400          | 2,625E-02 | 2900          | 5,817E-01 | 4400          | 7,300E-03 |
| 350           | 9,108E-02   | 650           | 7,798E-03   | 950           | < 1,000E-05 | 1450          | 5,320E-02 | 2950          | 5,066E-01 | 4450          | 6,119E-03 |
| 360           | 2,195E-01   | 660           | 3,302E-03   | 960           | < 1,000E-05 | 1500          | 9,161E-02 | 3000          | 4,476E-01 | 4500          | 4,921E-03 |
| 370           | 3,360E-01   | 670           | 1,321E-03   | 970           | < 1,000E-05 | 1550          | 1,447E-01 | 3050          | 3,964E-01 | 4550          | 4,292E-03 |
| 380           | 4,226E-01   | 680           | 5,023E-04   | 980           | < 1,000E-05 | 1600          | 2,069E-01 | 3100          | 3,497E-01 | 4600          | 4,391E-03 |
| 390           | 4,878E-01   | 690           | 1,842E-04   | 990           | < 1,000E-05 | 1650          | 2,769E-01 | 3150          | 3,079E-01 | 4650          | 5,777E-03 |
| 400           | 5,392E-01   | 700           | 8,097E-05   | 1000          | < 1,000E-05 | 1700          | 3,488E-01 | 3200          | 2,721E-01 | 4700          | 9,208E-03 |
| 410           | 5,833E-01   | 710           | 2,428E-05   | 1010          | < 1,000E-05 | 1750          | 4,211E-01 | 3250          | 2,426E-01 | 4750          | 1,479E-02 |
| 420           | 6,234E-01   | 720           | < 1,000E-05 | 1020          | < 1,000E-05 | 1800          | 4,898E-01 | 3300          | 2,195E-01 | 4800          | 2,212E-02 |
| 430           | 6,594E-01   | 730           | < 1,000E-05 | 1030          | < 1,000E-05 | 1850          | 5,517E-01 | 3350          | 2,018E-01 | 4850          | 3,079E-02 |
| 440           | 6,935E-01   | 740           | < 1,000E-05 | 1040          | < 1,000E-05 | 1900          | 6,083E-01 | 3400          | 1,895E-01 | 4900          | 4,149E-02 |
| 450           | 7,239E-01   | 750           | < 1,000E-05 | 1050          | < 1,000E-05 | 1950          | 6,584E-01 | 3450          | 1,825E-01 | 4950          | 5,501E-02 |
| 460           | 7,523E-01   | 760           | < 1,000E-05 | 1060          | < 1,000E-05 | 2000          | 7,010E-01 | 3500          | 1,804E-01 | 5000          | 7,058E-02 |
| 470           | 7,760E-01   | 770           | < 1,000E-05 | 1070          | < 1,000E-05 | 2050          | 7,377E-01 | 3550          | 1,834E-01 | 5050          | 8,601E-02 |
| 480           | 7,970E-01   | 780           | < 1,000E-05 | 1080          | 1,035E-05   | 2100          | 7,696E-01 | 3600          | 1,913E-01 | 5100          | 9,768E-02 |
| 490           | 8,128E-01   | 790           | < 1,000E-05 | 1090          | 1,536E-05   | 2150          | 7,959E-01 | 3650          | 2,044E-01 | 5150          | 1,023E-01 |