

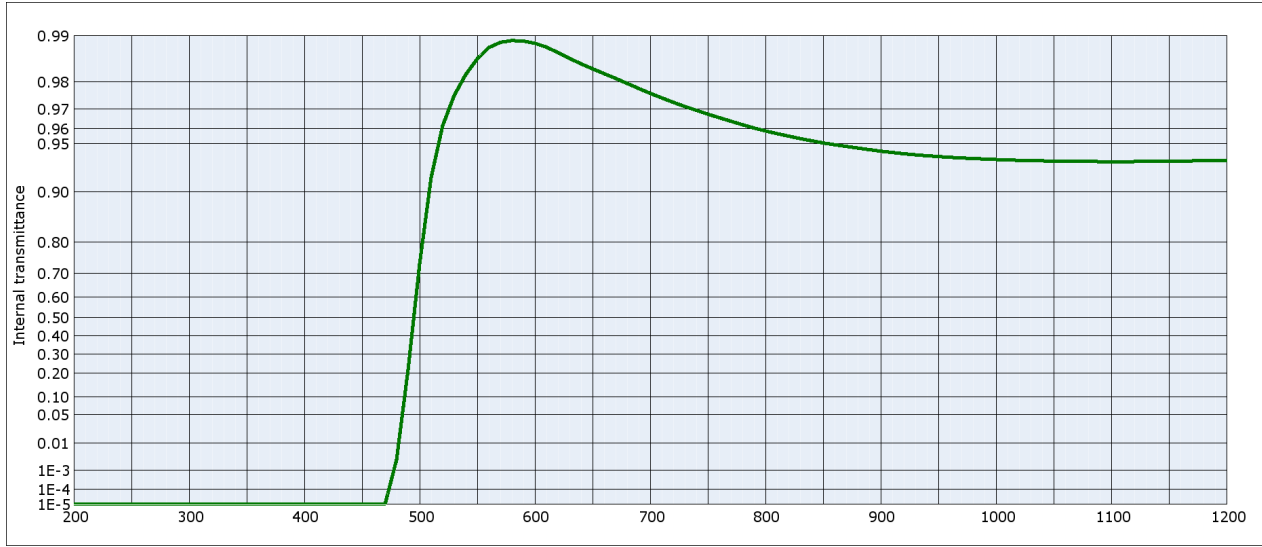
# Data Sheet



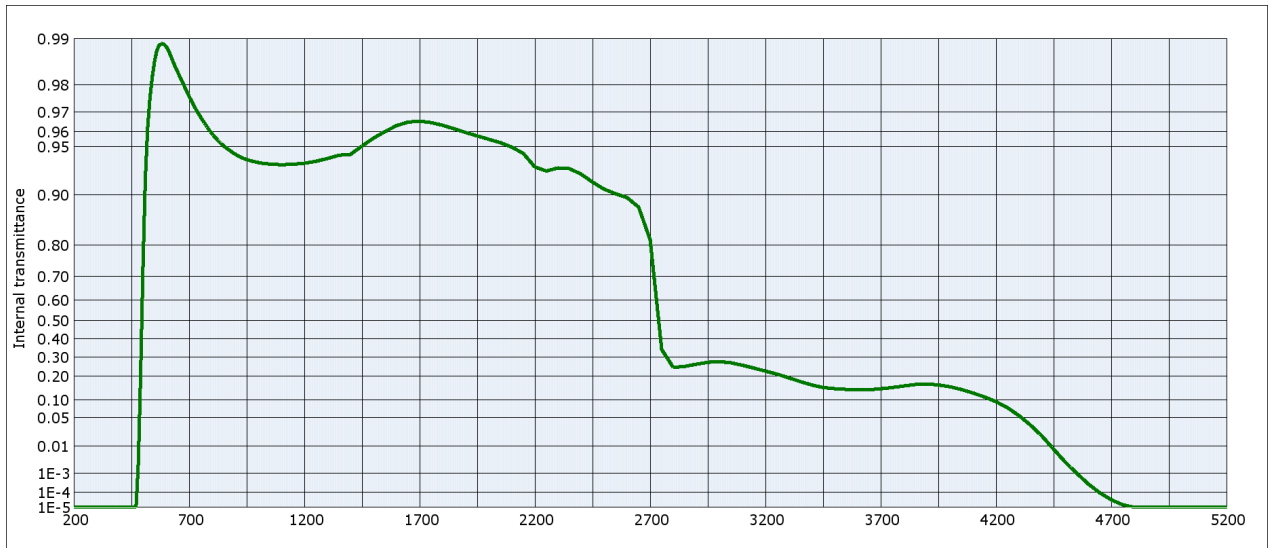
|   |                             |                                   |                           |  |      |  |  |  |
|---|-----------------------------|-----------------------------------|---------------------------|--|------|--|--|--|
| <b>GG495</b>                                | <b>Density</b>              |                                   | <b>Notes</b>              |  |      |  |  |  |
|   | $\rho$ [g/cm <sup>3</sup> ] |                                   | Colloidally colored glass |  |      |  |  |  |
|   | 2.56                        |                                   | Longpass filter           |  |      |  |  |  |
|   |                             |                                   |                           |  |      |  |  |  |
| <b>Reflection factor</b>                    |                             | <b>Bubble content</b>             |                           |  |      |  |  |  |
| $P_d$                                       | 0.918                       |                                   | Bubble class              |  | 3    |  |  |  |
|   |                             |                                   |                           |  |      |  |  |  |
| <b>Reference thickness</b>                  |                             | <b>Chemical Resistance</b>        |                           |  |      |  |  |  |
| $d$ [mm]                                    | 3                           |                                   | FR class                  |  | 0    |  |  |  |
|   |                             |                                   | SR class                  |  | 1.0  |  |  |  |
|   |                             |                                   | AR class                  |  | 1.0  |  |  |  |
|   |                             |                                   |                           |  |      |  |  |  |
| <b>Spectral values guaranteed</b>           |                             | <b>Transformation temperature</b> |                           |  |      |  |  |  |
| $\lambda_c$ ( $\tau_i = 0.5$ ) [nm]         | = 495 ± 6                   |                                   | $T_g$ [°C]                |  | 535  |  |  |  |
| $\lambda_s$ ( $\tau_{i,U} = 10^{-5}$ ) [nm] | = 430                       |                                   |                           |  |      |  |  |  |
| $\lambda_p$ ( $\tau_{i,L} = 0.92$ ) [nm]    | = 560                       |                                   |                           |  |      |  |  |  |
|   |                             |                                   |                           |  |      |  |  |  |
|   |                             |                                   |                           |  |      |  |  |  |
|   |                             |                                   |                           |  |      |  |  |  |
|   |                             |                                   |                           |  |      |  |  |  |
|   |                             |                                   |                           |  |      |  |  |  |
|   |                             |                                   |                           |  |      |  |  |  |
|   |                             |                                   |                           |  |      |  |  |  |
|   |                             |                                   |                           |  |      |  |  |  |
|   |                             |                                   |                           |  |      |  |  |  |
|   |                             |                                   |                           |  |      |  |  |  |
|   |                             |                                   |                           |  |      |  |  |  |
|   |                             |                                   |                           |  |      |  |  |  |
|   |                             |                                   |                           |  |      |  |  |  |
|   |                             |                                   |                           |  |      |  |  |  |
|   |                             |                                   |                           |  |      |  |  |  |
|   |                             |                                   |                           |  |      |  |  |  |
|   |                             |                                   |                           |  |      |  |  |  |
| <b>Refractive Index n</b>                   |                             | <b>Temperature coefficient</b>    |                           |  |      |  |  |  |
| $n_e$ (546.1 nm) = 1.526                    |                             |                                   | $T_K$ [nm/°C]             |  | 0.10 |  |  |  |
| $n_d$ (587.6 nm) = 1.524                    |                             |                                   |                           |  |      |  |  |  |
| $n_s$ (852.1 nm) = 1.516                    |                             |                                   |                           |  |      |  |  |  |
| $n_i$ (1014.0 nm) = 1.514                   |                             |                                   |                           |  |      |  |  |  |
| Sellmeier coefficients on request           |                             |                                   |                           |  |      |  |  |  |
|   |                             |                                   |                           |  |      |  |  |  |
|   |                             |                                   |                           |  |      |  |  |  |
|   |                             |                                   |                           |  |      |  |  |  |
|   |                             |                                   |                           |  |      |  |  |  |

**All data without tolerances are to be understood to be reference values. Guaranteed values are only those values listed in the section "Spectral values guaranteed".**

| Colorimetric evaluation |                       |       |       |                  |                   |        |       |                  |                               |       |        |   |
|-------------------------|-----------------------|-------|-------|------------------|-------------------|--------|-------|------------------|-------------------------------|-------|--------|---|
| Illuminant              | A (Planck T = 2856 K) |       |       | Illuminant       | Planck T = 3200 K |        |       | Illuminant       | D65 (T <sub>C</sub> = 6504 K) |       |        |   |
|                         | d [mm]                | 1     | 2     |                  | 3                 | d [mm] | 1     |                  | 2                             | 3     | d [mm] | 1 |
| x                       | 0.502                 | 0.507 | 0.509 | x                | 0.488             | 0.494  | 0.497 | x                | 0.422                         | 0.433 | 0.438  |   |
| y                       | 0.469                 | 0.472 | 0.472 | y                | 0.478             | 0.482  | 0.482 | y                | 0.514                         | 0.525 | 0.527  |   |
| Y                       | 89                    | 88    | 88    | Y                | 89                | 88     | 87    | Y                | 87                            | 85    | 84     |   |
| $\lambda_d$ [nm]        | 580                   | 581   | 581   | $\lambda_d$ [nm] | 579               | 579    | 579   | $\lambda_d$ [nm] | 570                           | 571   | 571    |   |
| $P_e$                   | 0.81                  | 0.86  | 0.88  | $P_e$            | 0.82              | 0.87   | 0.89  | $P_e$            | 0.82                          | 0.89  | 0.90   |   |



# GG495



**Internal transmittance  $\tau_i$  at reference thickness  $d = 3$  mm**  
 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            | $< 10^{-5}$         | 500            | 0.732    | 800            | 0.959    | 1100           | 0.935    | 2200           | 0.933    | 3700           | 0.143               |
| 210            | $< 10^{-5}$         | 510            | 0.918    | 810            | 0.957    | 1110           | 0.935    | 2250           | 0.929    | 3750           | 0.149               |
| 220            | $< 10^{-5}$         | 520            | 0.962    | 820            | 0.955    | 1120           | 0.935    | 2300           | 0.932    | 3800           | 0.155               |
| 230            | $< 10^{-5}$         | 530            | 0.976    | 830            | 0.954    | 1130           | 0.935    | 2350           | 0.931    | 3850           | 0.162               |
| 240            | $< 10^{-5}$         | 540            | 0.982    | 840            | 0.952    | 1140           | 0.935    | 2400           | 0.926    | 3900           | 0.164               |
| 250            | $< 10^{-5}$         | 550            | 0.986    | 850            | 0.951    | 1150           | 0.936    | 2450           | 0.917    | 3950           | 0.160               |
| 260            | $< 10^{-5}$         | 560            | 0.988    | 860            | 0.949    | 1160           | 0.936    | 2500           | 0.908    | 4000           | 0.152               |
| 270            | $< 10^{-5}$         | 570            | 0.989    | 870            | 0.948    | 1170           | 0.936    | 2550           | 0.901    | 4050           | 0.141               |
| 280            | $< 10^{-5}$         | 580            | 0.989    | 880            | 0.947    | 1180           | 0.936    | 2600           | 0.896    | 4100           | 0.127               |
| 290            | $< 10^{-5}$         | 590            | 0.989    | 890            | 0.946    | 1190           | 0.936    | 2650           | 0.881    | 4150           | 0.111               |
| 300            | $< 10^{-5}$         | 600            | 0.989    | 900            | 0.944    | 1200           | 0.936    | 2700           | 0.813    | 4200           | $9.5 \cdot 10^{-2}$ |
| 310            | $< 10^{-5}$         | 610            | 0.988    | 910            | 0.943    | 1250           | 0.938    | 2750           | 0.341    | 4250           | $7.6 \cdot 10^{-2}$ |
| 320            | $< 10^{-5}$         | 620            | 0.987    | 920            | 0.942    | 1300           | 0.941    | 2800           | 0.244    | 4300           | $5.5 \cdot 10^{-2}$ |
| 330            | $< 10^{-5}$         | 630            | 0.986    | 930            | 0.941    | 1350           | 0.943    | 2850           | 0.250    | 4350           | $3.5 \cdot 10^{-2}$ |
| 340            | $< 10^{-5}$         | 640            | 0.985    | 940            | 0.941    | 1400           | 0.944    | 2900           | 0.261    | 4400           | $1.9 \cdot 10^{-2}$ |
| 350            | $< 10^{-5}$         | 650            | 0.984    | 950            | 0.940    | 1450           | 0.951    | 2950           | 0.271    | 4450           | $8.1 \cdot 10^{-3}$ |
| 360            | $< 10^{-5}$         | 660            | 0.982    | 960            | 0.939    | 1500           | 0.956    | 3000           | 0.275    | 4500           | $2.9 \cdot 10^{-3}$ |
| 370            | $< 10^{-5}$         | 670            | 0.981    | 970            | 0.939    | 1550           | 0.960    | 3050           | 0.269    | 4550           | $1.0 \cdot 10^{-3}$ |
| 380            | $< 10^{-5}$         | 680            | 0.980    | 980            | 0.938    | 1600           | 0.963    | 3100           | 0.256    | 4600           | $3.0 \cdot 10^{-4}$ |
| 390            | $< 10^{-5}$         | 690            | 0.978    | 990            | 0.938    | 1650           | 0.965    | 3150           | 0.241    | 4650           | $9.6 \cdot 10^{-5}$ |
| 400            | $< 10^{-5}$         | 700            | 0.976    | 1000           | 0.937    | 1700           | 0.966    | 3200           | 0.226    | 4700           | $3.4 \cdot 10^{-5}$ |
| 410            | $< 10^{-5}$         | 710            | 0.975    | 1010           | 0.937    | 1750           | 0.965    | 3250           | 0.211    | 4750           | $1.5 \cdot 10^{-5}$ |
| 420            | $< 10^{-5}$         | 720            | 0.973    | 1020           | 0.936    | 1800           | 0.964    | 3300           | 0.193    | 4800           | $< 10^{-5}$         |
| 430            | $< 10^{-5}$         | 730            | 0.971    | 1030           | 0.936    | 1850           | 0.962    | 3350           | 0.175    | 4850           | $< 10^{-5}$         |
| 440            | $< 10^{-5}$         | 740            | 0.969    | 1040           | 0.936    | 1900           | 0.959    | 3400           | 0.160    | 4900           | $< 10^{-5}$         |
| 450            | $< 10^{-5}$         | 750            | 0.968    | 1050           | 0.936    | 1950           | 0.957    | 3450           | 0.149    | 4950           | $< 10^{-5}$         |
| 460            | $< 10^{-5}$         | 760            | 0.966    | 1060           | 0.936    | 2000           | 0.955    | 3500           | 0.144    | 5000           | $< 10^{-5}$         |
| 470            | $< 10^{-5}$         | 770            | 0.964    | 1070           | 0.935    | 2050           | 0.953    | 3550           | 0.141    | 5050           | $< 10^{-5}$         |
| 480            | $2.8 \cdot 10^{-3}$ | 780            | 0.962    | 1080           | 0.935    | 2100           | 0.950    | 3600           | 0.139    | 5100           | $< 10^{-5}$         |
| 490            | 0.218               | 790            | 0.960    | 1090           | 0.935    | 2150           | 0.945    | 3650           | 0.140    | 5150           | $< 10^{-5}$         |