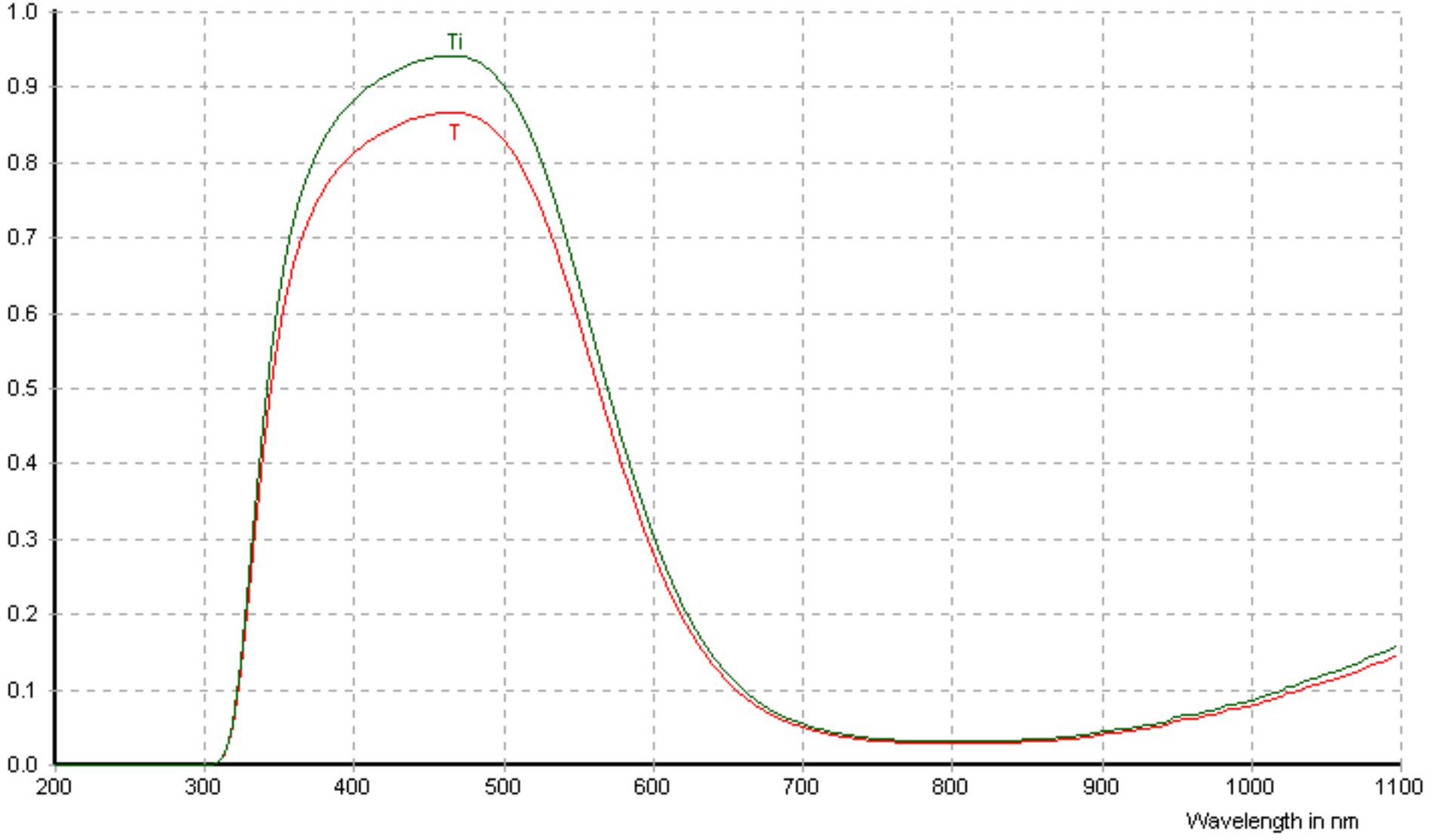
Thickness in mm : 1.0
Wavelength in nm :
Transmittance :
Internal Transmittance :

# BG 23

SCHOTT
TOTAL CUSTOMER CARE



SCHOTT
TOTAL CUSTOMER CARE

# BG 23

**Reflection factor**
$P_d$ 0.92
**Bubble content**
Bubble class 1
**Chemical resistance**
FR class 0
SR class 1.0
AR class 1.0

**Density**
ρ [g/cm³] 2.57
**Transformation temperature**
Tg [°C] 483
**Thermal expansion**
$\alpha_{-30/+70°C}$ [$10^{-6}$/K] 8.9
$\alpha_{20/300°C}$ [$10^{-6}$/K] 10.2
**Temperature coefficient**
$T_k$ [nm/°C]

**Per DIN 58191** **BP 459/232**
**Per DIN 58191** **KP 575**

Ionically colored glass

**Limit values of $\tau_i$**
for thickness d = 1 mm

| Wave-length [nm] | Limits | Value from catalog curve |
|---|---|---|
| 450 | ≥0.92 | 0.94 |
| 633 | ≤0.25 | 0.17 |
| 800 | ≤0.08 | 0.03 |

**Refractive index n**

| λ [nm] | Element | n |
|---|---|---|
| 404.7 | Hg | 1.53 |
| 587.6 | He | 1.52 |

**Tristimulus values**

| | d [mm] | x | y | Y | $\lambda_d$ [nm] | $P_e$ |
|---|---|---|---|---|---|---|
| A | 1 | 0.320 | 0.411 | 46 | 495 | 0.30 |
| 2856 | 2 | 0.235 | 0.384 | 28 | 493 | 0.51 |
| K | 3 | 0.186 | 0.347 | 19 | 491 | 0.64 |
| | 5 | 0.144 | 0.280 | 11 | 487 | 0.78 |
| | 1 | 0.299 | 0.391 | 48 | 493 | 0.32 |
| 3200 | 2 | 0.221 | 0.357 | 30 | 491 | 0.53 |
| K | 3 | 0.178 | 0.319 | 21 | 489 | 0.66 |
| | 5 | 0.142 | 0.255 | 12 | 486 | 0.78 |
| | 1 | 0.221 | 0.287 | 54 | 486 | 0.37 |
| $D_{65}$ | 2 | 0.177 | 0.246 | 37 | 484 | 0.57 |
| | 3 | 0.156 | 0.214 | 27 | 482 | 0.68 |
| | 5 | 0.140 | 0.170 | 17 | 480 | 0.79 |

**Application notes**
Band pass filter
- see section 6.7.3

Short pass filter
- see section 6.7.2

V
Transmission changes are possible under the action of intense ultraviolet radiation
- see section 8.3

Status June 1997

**Transmittance τ and internal transmittance $\tau_i$ at d = 1 mm**

| λ [nm] | τ | $\tau_i$ | λ [nm] | τ | $\tau_i$ |
|---|---|---|---|---|---|
| 200 | $<1\cdot10^{-5}$ | $<1\cdot10^{-5}$ | 700 | 0.05 | 0.06 |
| 210 | $<1\cdot10^{-5}$ | $<1\cdot10^{-5}$ | 710 | 0.05 | 0.05 |
| 220 | $<1\cdot10^{-5}$ | $<1\cdot10^{-5}$ | 720 | 0.04 | 0.04 |
| 230 | $<1\cdot10^{-5}$ | $<1\cdot10^{-5}$ | 730 | 0.04 | 0.04 |
| 240 | $<1\cdot10^{-5}$ | $<1\cdot10^{-5}$ | 740 | 0.03 | 0.04 |
| 250 | $<1\cdot10^{-5}$ | $<1\cdot10^{-5}$ | 750 | 0.03 | 0.04 |
| 260 | $<1\cdot10^{-5}$ | $<1\cdot10^{-5}$ | 760 | 0.03 | 0.03 |
| 270 | $<1\cdot10^{-5}$ | $<1\cdot10^{-5}$ | 770 | 0.03 | 0.03 |
| 280 | $<1\cdot10^{-5}$ | $<1\cdot10^{-5}$ | 780 | 0.03 | 0.03 |
| 290 | $<1\cdot10^{-5}$ | $<1\cdot10^{-5}$ | 790 | 0.03 | 0.03 |
| 300 | $<1\cdot10^{-5}$ | $<1\cdot10^{-5}$ | 800 | 0.03 | 0.03 |
| 310 | 0.003 | 0.003 | 850 | 0.03 | 0.03 |
| 320 | 0.05 | 0.06 | 900 | 0.04 | 0.04 |
| 330 | 0.22 | 0.24 | 950 | 0.06 | 0.06 |
| 340 | 0.41 | 0.45 | 1000 | 0.08 | 0.09 |
| 350 | 0.57 | 0.62 | 1060 | 0.12 | 0.13 |
| 360 | 0.66 | 0.72 | 1100 | 0.15 | 0.16 |
| 370 | 0.72 | 0.78 | 1200 | 0.23 | 0.25 |
| 380 | 0.76 | 0.83 | 1300 | 0.32 | 0.35 |
| 390 | 0.79 | 0.86 | 1400 | 0.42 | 0.46 |
| 400 | 0.81 | 0.88 | 1500 | 0.52 | 0.56 |
| 410 | 0.83 | 0.90 | 1600 | 0.59 | 0.64 |
| 420 | 0.84 | 0.91 | 1700 | 0.64 | 0.70 |
| 430 | 0.85 | 0.92 | 1800 | 0.70 | 0.76 |
| 440 | 0.86 | 0.93 | 1900 | 0.74 | 0.80 |
| 450 | 0.86 | 0.94 | 2000 | 0.77 | 0.84 |
| 460 | 0.87 | 0.94 | 2100 | 0.79 | 0.86 |
| 470 | 0.87 | 0.94 | 2200 | 0.81 | 0.88 |
| 480 | 0.86 | 0.94 | 2300 | 0.82 | 0.89 |
| 490 | 0.85 | 0.93 | 2400 | 0.83 | 0.90 |
| 500 | 0.83 | 0.91 | 2500 | 0.84 | 0.91 |
| 510 | 0.81 | 0.88 | 2600 | 0.84 | 0.91 |
| 520 | 0.77 | 0.84 | 2700 | 0.83 | 0.90 |
| 530 | 0.72 | 0.78 | 2800 | 0.67 | 0.73 |
| 540 | 0.66 | 0.72 | 2900 | 0.65 | 0.71 |
| 550 | 0.60 | 0.65 | 3000 | 0.63 | 0.69 |
| 560 | 0.53 | 0.58 | 3200 | 0.53 | 0.58 |
| 570 | 0.46 | 0.50 | 3400 | 0.43 | 0.47 |
| 580 | 0.40 | 0.43 | 3600 | 0.40 | 0.44 |
| 590 | 0.34 | 0.37 | 3800 | 0.42 | 0.46 |
| 600 | 0.29 | 0.31 | 4000 | 0.45 | 0.49 |
| 610 | 0.24 | 0.26 | 4200 | 0.38 | 0.41 |
| 620 | 0.20 | 0.22 | 4400 | 0.24 | 0.26 |
| 630 | 0.16 | 0.18 | 4600 | 0.08 | 0.08 |
| 640 | 0.14 | 0.15 | 4800 | 0.03 | 0.03 |
| 650 | 0.11 | 0.12 | 5000 | 0.009 | 0.01 |
| 660 | 0.09 | 0.10 | 5200 | $4\cdot10^{-4}$ | $4\cdot10^{-4}$ |
| 670 | 0.08 | 0.09 | | | |
| 680 | 0.07 | 0.07 | | | |
| 690 | 0.06 | 0.06 | | | |