

SCHOTT MEMpax®

SCHOTT MEMpax® is a borosilicate glass that is manufactured with fire-polished surfaces. It has similar chemical and physical characteristics as the well-known product SCHOTT Borofloat® 33.

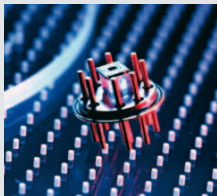
At the same time, MEMpax® is available in much lower thicknesses and offers a thin wafer that no longer needs to be ground and polished, thanks to its excellent surface quality. SCHOTT MEMpax® can be put to use anywhere that extremely thin borosilicate glasses are needed.

The coefficient of linear thermal expansion of MEMpax® corresponds with that of silicon, therefore this glass is perfectly suited for use in anodic bonding. Its low autofluorescence, combined with its excellent surface quality, flatness and homogeneity, opens up numerous application possibilities for SCHOTT MEMpax® in MEMS and Biotechnology.

Thanks to its low alkali content, MEMpax® acts as a high-quality insulator. For this reason, MEMpax® is an extremely appropriate material for applications that require nonconductive characteristics at high temperatures (up to 450°C).



Applications



MEMS

- Coefficient of linear thermal expansion corresponds with that of silicon
- Suited for anodic bonding
- Thin wafers without polishing
- High thermal and chemical resistance



Biotechnology

- High transmission
- Available in various thicknesses
- Low autofluorescence
- Excellent surface quality

Technical Data

| | |
|--------------------------------------------------------------------------------------------|--------------------------------------|
| Dimensions | 6", 8" or 12" Wafer |
| Thicknesses | 0.1 mm to 1.1 mm |
| Luminous transmittance τ_{vD65} (d = 0.5 mm) | 91,7 % |
| Coefficient of mean linear thermal expansion α (20 °C; 300 °C) (static measurement) | $3.25 \times 10^{-6} \text{ K}^{-1}$ |
| Transformation temperature Tg | 525 °C |
| Dielectric constant ϵ_r at 1 MHz | 4.6 |
| Refractive index n_D | 1.4714 |
| Density ρ (annealed at 40 °C/h) | 2.2 g/cm ³ |

For more information please contact:

Advanced Optics
SCHOTT AG
Hattenbergstrasse 10
55122 Mainz
Germany

Phone: +49 (0)6131/66-1812
Fax: +49 (0)3641/2888-9047
info.optics@schott.com
www.schott.com/advanced_optics

SCHOTT
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