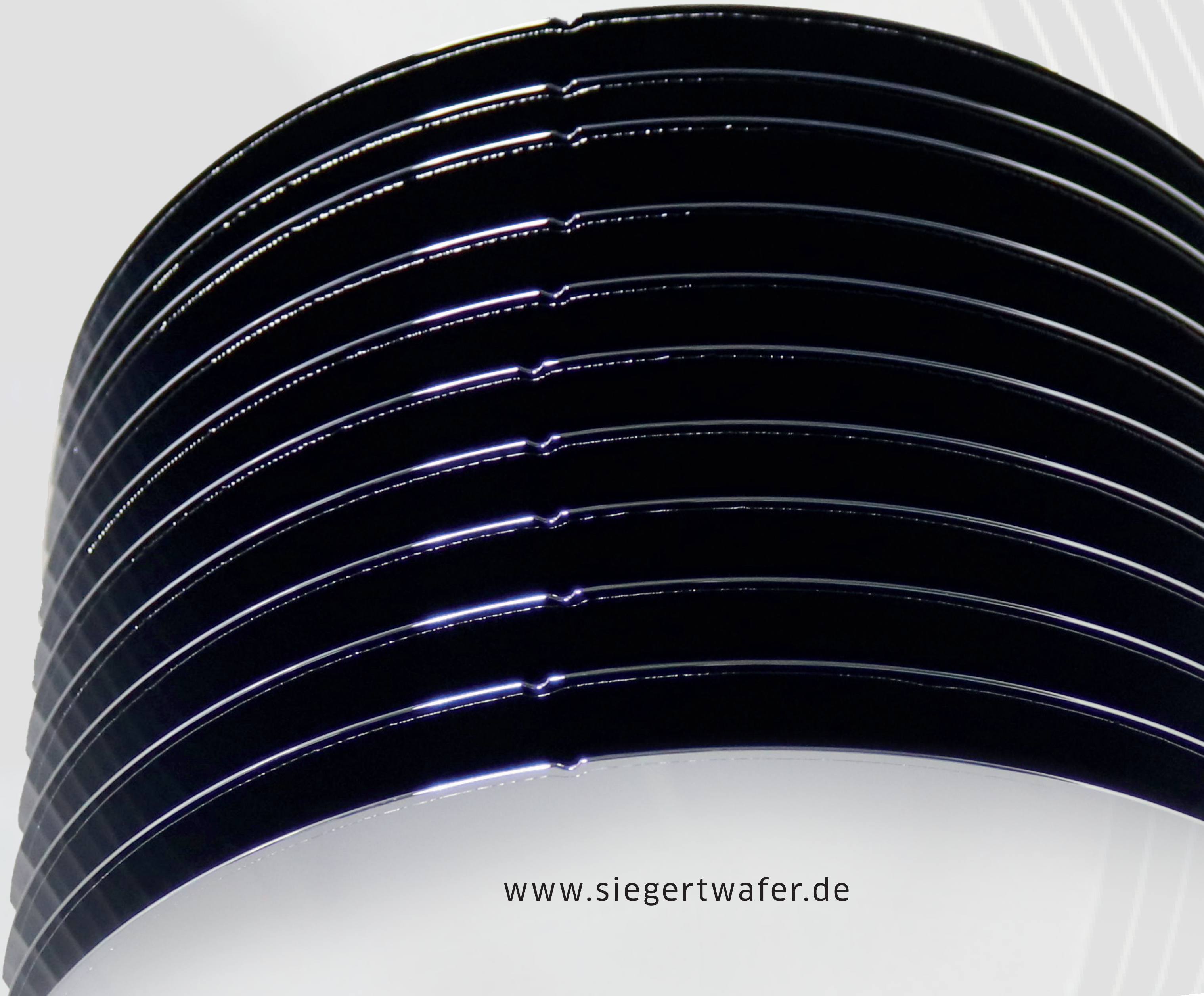
SIEGERT WAFER
Wafer Specialist

Product Catalogue

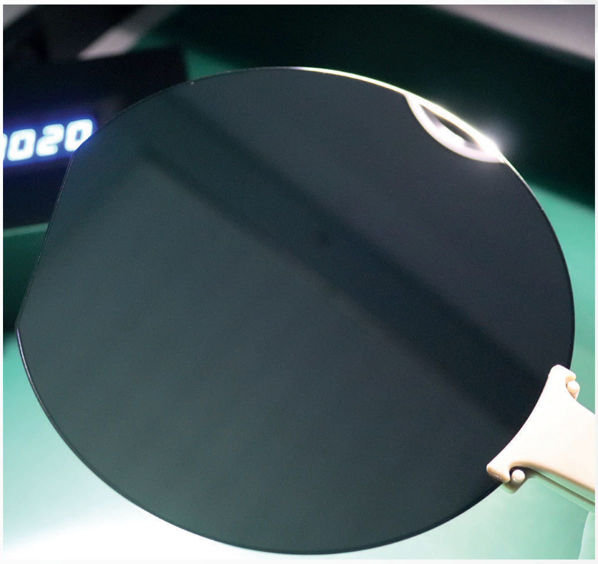


www.siegertwafer.de

SOI Wafers

At our production site close to Aachen, a variety of high-quality Silicon-On-Insulator (SOI) wafers is manufactured by direct bonding technology. After wafer preprocessing, a pure silicon wafer and an oxidized silicon wafer are pre-bonded together at room temperature and annealed at elevated temperature for a permanent bonding followed by several post-processing steps.

We offer SOI wafers of 4”, 6” and 8” diameter. Device layer thickness, handle, and BOX are designed according to customer needs.



Final SOI wafer consists of three layers:

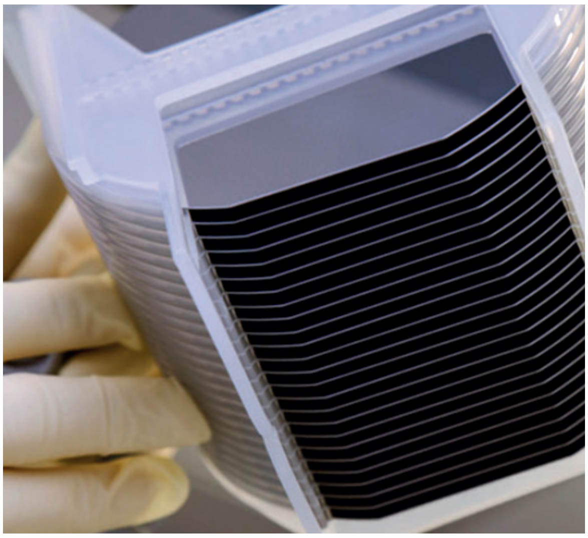
- On top a device layer typically used to built IC or MEMS devices and sensing elements
- In the middle the buried oxide (BOX) layer providing an excellent electric insulating layer and an effective etch-stop
- At bottom the handle wafer supporting the whole structure

Our SOI wafers are versatile and cater to a wide range of applications, including:

- Microelectronics: Ideal for CMOS integrated circuits, which are the backbone of modern electronics.
- MEMS Devices: Essential for the production of sensors and actuators used in various industries.
- High-Frequency RF Applications: Perfect for applications requiring reduced parasitic effects and improved signal integrity.

Silicon Wafers

We supply almost any desired specification from diameter 50,8 – 300 mm in a large range of resistivity and thickness. You can find high purity wafers grown by Czochralski (CZ) as well as by Float Zone (FZ).



Glass Wafers

Our glass wafers are available up to a diameter of 300 mm, as well as rectangular shapes. Common specifications made of Borofloat or Fused Silica are usually available in our stock – special requirements are made individually according to your wishes.

Sapphire Wafers

Sapphire wafers with a very low surface roughness in all orientations (C,- A,- R,- M,-Plane) and, if desired, with a miscut. Suitable for various applications, e.g. Optics industry and semiconductors. The growth method can be HEM or Kyropolos, depending on customer preference or availability. For sapphire wafers, we also offer various services, such as antireflection coatings or laser processing.

Services

We offer a range of wafer services in clean room environment, including:

- Grinding and polishing
- Downsizing, shaping
- Dicing
- Various coatings
- Separating
- Reclaim of silicon wafers
- Laser processing:
  scribing, marking or cutting
- Metrology

SIEGERT WAFER GmbH, headquartered in Aachen, Germany, has been a reliable wafer supplier since 2002. We serve a diverse clientele, including industrial companies, universities, research laboratories, and institutes worldwide. Our extensive product portfolio features silicon wafers, including SOI wafers, as well as substrates made from Fused Silica, Borofloat, various Glasses, and Sapphire. In addition to our standard offerings, we provide customized substrates tailored to specific requirements upon request and wafer services.

We emphasize research, development, and production. Our R&D center is equipped with advanced metrology tools for precise wafer characterization. Our own production facility specializes in manufacturing unique silicon wafers, particularly SOI wafers.

At SIEGERT WAFER GmbH, quality is our top priority. Our production facility is equipped with the latest technology and adheres to stringent quality control measures to ensure that every wafer meets the highest industry standards.

We are certified according to ISO 9001:2015 by DEKRA and we are member of the SEMI association which provide a platform to unite the semiconductor ecosystem with the broader electronics manufacturing and design supply chain.

Quality Management
ISO 9001
www.dekra-seal.com
DEKRA
certified

semi™
MEMBER

SIEGERT WAFER GmbH

Address	Gewerbepark Brand 82 52078 Aachen, Germany
Phone	+49 (0)241 943 297-00
Email	sales@siegertwafer.de
Website	www.siegertwafer.de