



Chemical Polishing.

Surface Processing to Increase the Breaking Resistance.

Chemical Polishing.

Mechanical processing of brittle/hard materials causes micro-cracks in the surface, which affect the breaking resistance of the entire part. Our chemical polishing process can remove micro-cracks, which can be the starting point for a break, from inaccessible places.

The Solution

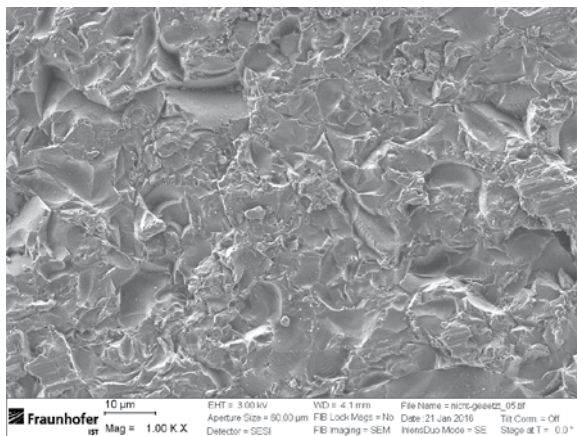
- Chemical removal of micro-cracks to increase the breaking resistance
- Precise etching according to the customer's details
- Difficult to access and non-plane spots that are not optically active can be reached, such as pockets, holes, capillaries and other precise geometrical shapes

Applications

- Components for highly technical applications, which
 - have to be moved quickly,
 - are exposed to high pressure (loads higher than 50 MPa) and/or a vacuum
 - experience strong vibrations,
 - are subjected to changing temperatures
- Lightweight structures for the semiconductor and aviation and aerospace industries, e. g. mirror blocks and mirror substrates used in astronomical telescopes
- Prisms for operation microscopes

Possible Materials

- Zerodur®
- ULE
- Quartz
- Clear-ceramic
- Other materials upon request



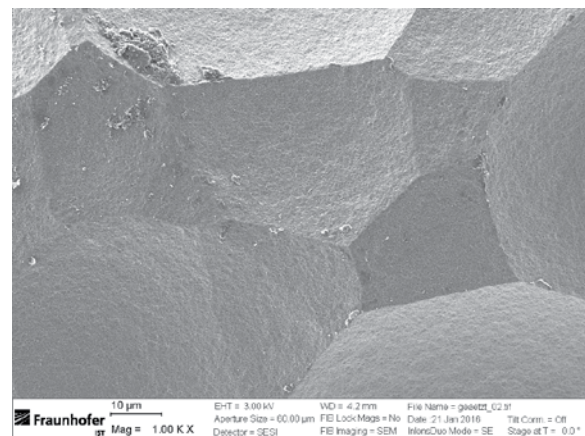
no chemical polishing - micro-cracks exist

Processing Chain



Our Strengths Are Your Benefits

- Many years' chemical polishing experience and the handling of high-value parts
- Optimum and flexible production conditions ensured through the use of specific equipment
- Option to be personally present during the processing of prototypes
- Environment protection and occupational safety at the highest levels
- Absolute confidentiality
- Customized processes
- Project-related development



with chemical polishing - no micro-cracks