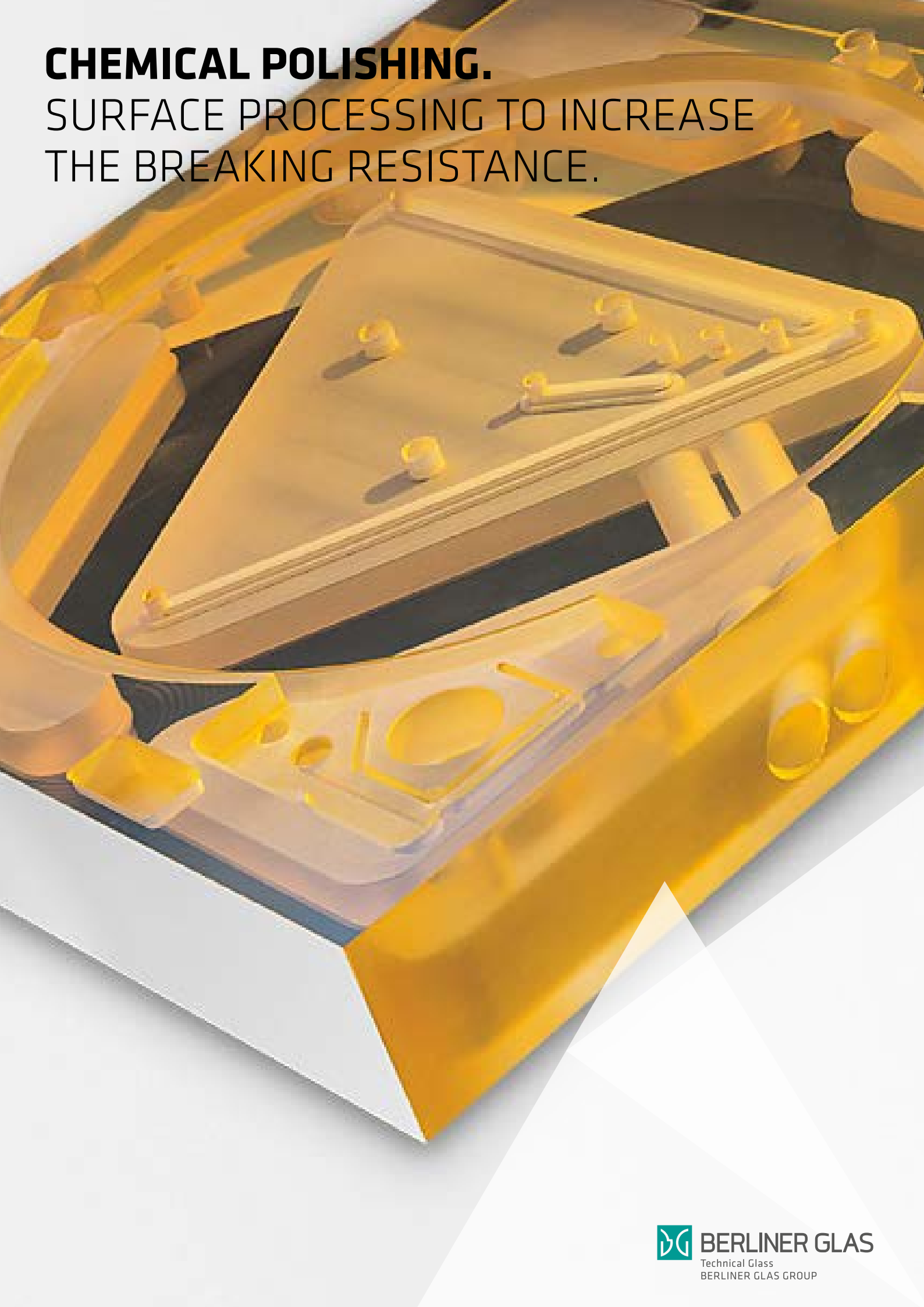


# CHEMICAL POLISHING.

SURFACE PROCESSING TO INCREASE  
THE BREAKING RESISTANCE.



**BERLINER GLAS**

Technical Glass  
BERLINER GLAS GROUP

# 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 sub-strates used in astronomical telescopes
- ▶ Prisms for operation microscopes

## POSSIBLE MATERIALS

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

## 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