

Heating

Energy efficiency and precise heating are becoming increasingly important. With our printable structures, we implement individual heating points or planar heating with individual heating power and precise heating times.

The binder method goes beyond two dimensions, applying heating elements to countless 3D geometries and surfaces. This makes previously inconceivable innovations possible.

Possible areas of application:

- Biotechnology
- Consumer goods industry
- Aerospace
- Medical technology
- Metrology

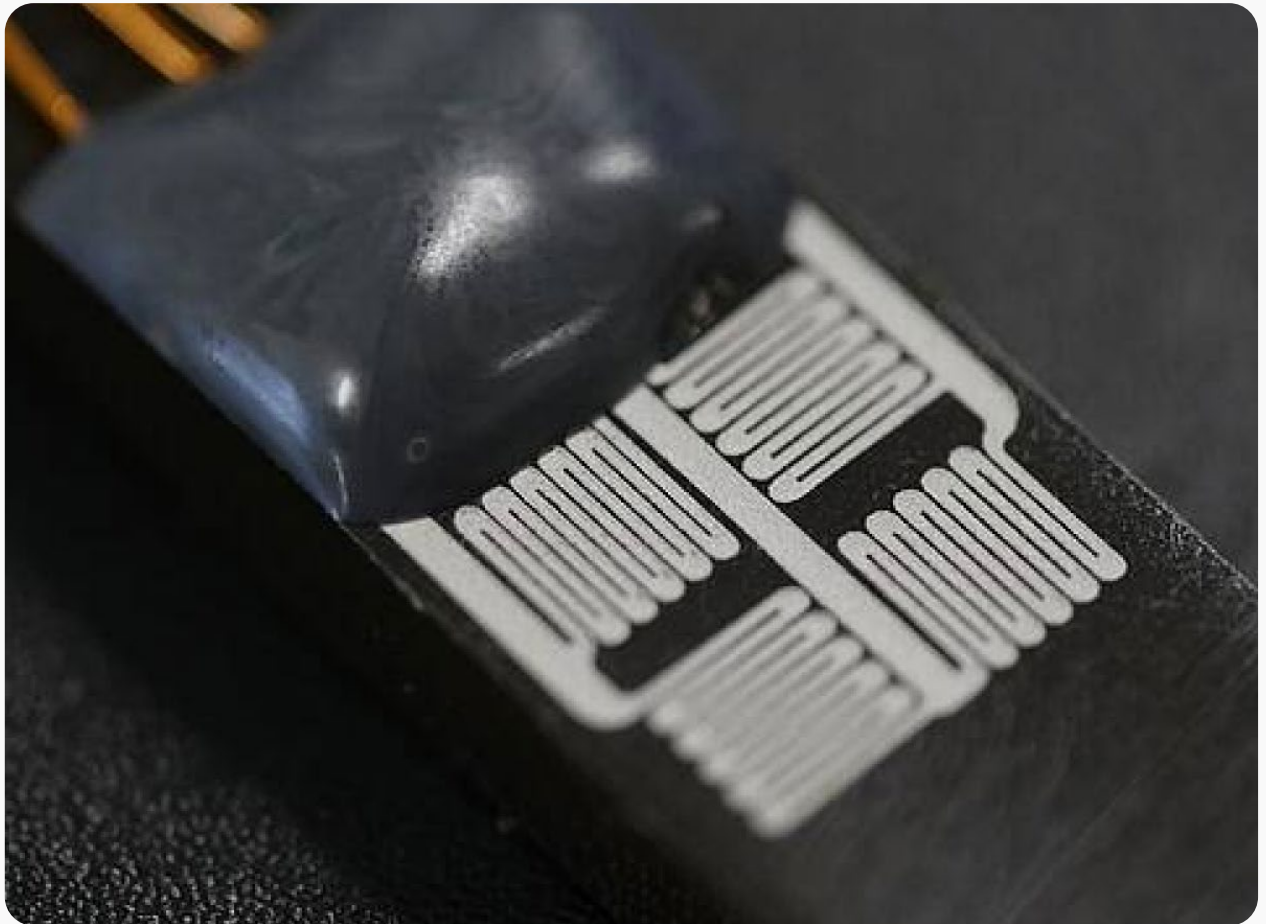


Sensors / Touch sensors

Touch sensors dominate the market and play an indispensable role, especially for control elements. The binder ITZ transfers inputs from the plane to a new dimension with ease. Our capacitive 3D touch sensor surfaces can be applied to individual designs. They are almost invisible and can be custom made in any desired design. Our sensors allow seamless connection to traditional electronics. Touch sensors Touch sensors dominate the market and play an indispensable role, especially for control elements. The binder ITZ transfers inputs from the plane to a new dimension with ease. Our capacitive 3D touch sensor surfaces can be applied to individual designs. They are almost invisible and can be custom made in any desired design. Our sensors allow seamless connection to traditional electronics.

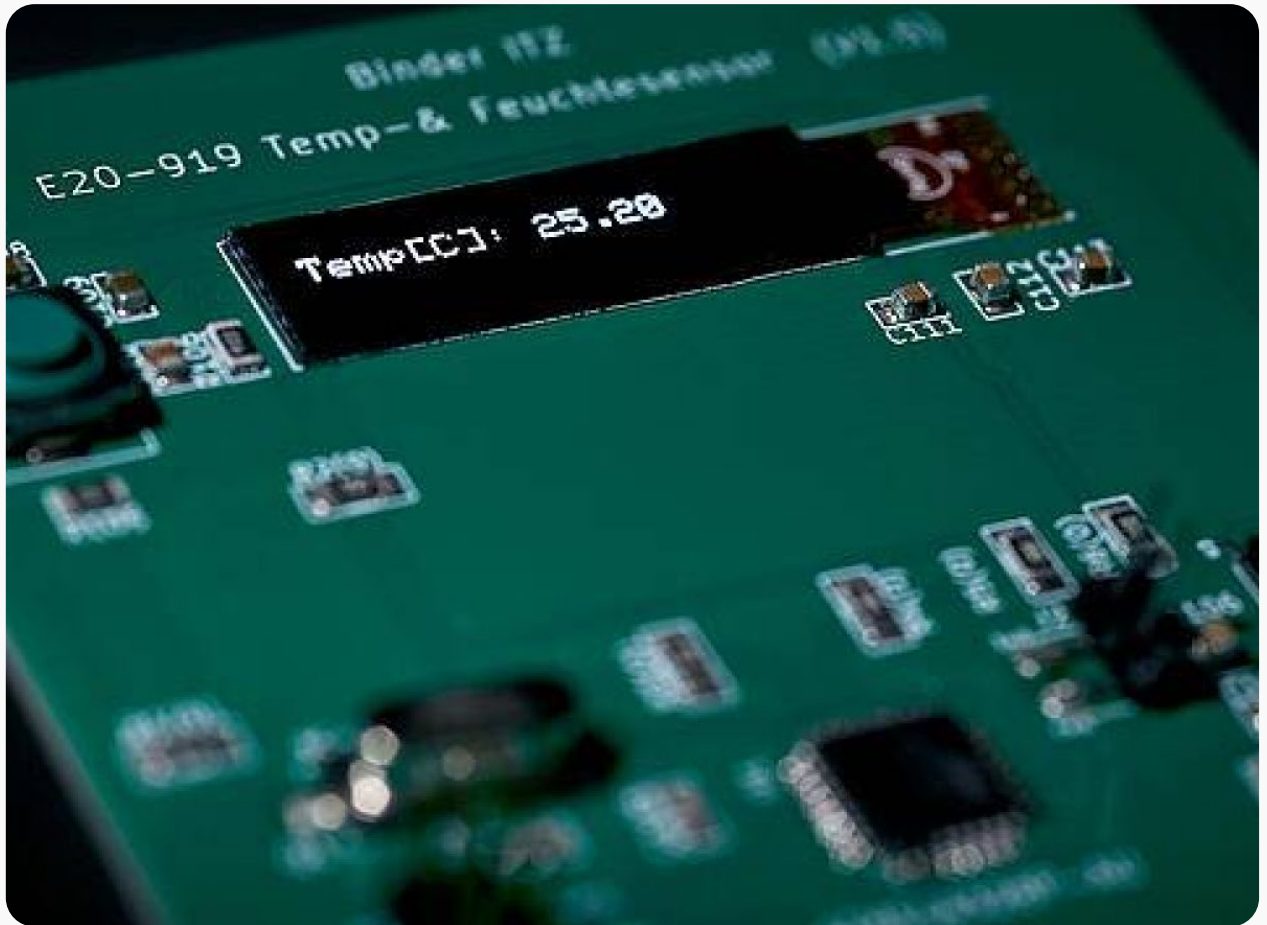
Possible areas of application:

- Occupational science (e.g., human-machine interfaces)
- Automation technology
- Biotechnology
- Mechanical engineering
- Medical technology



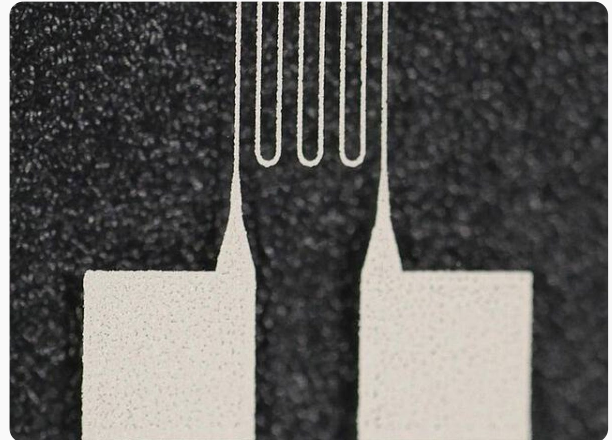
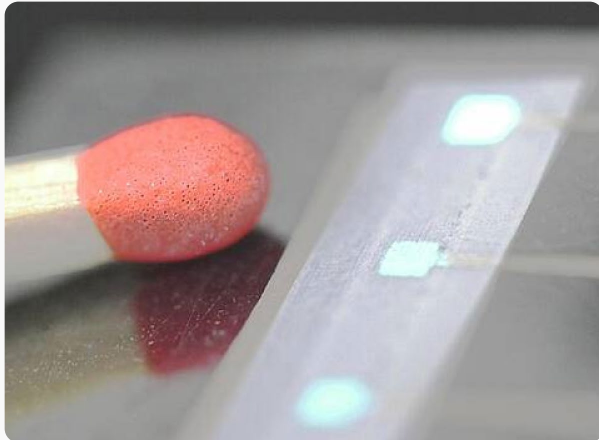
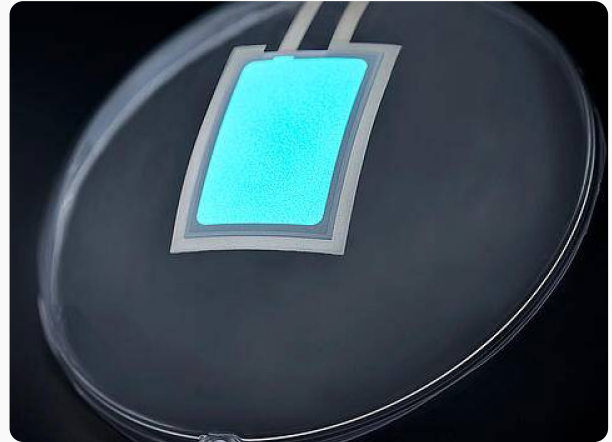
Force sensors

Our force sensors help to minimise the measurement effort down to the essentials. Printed structures make it possible to record the force application directly on the object. The measurement is reliable, immediate and delivers adjustable precision. This makes sensor management an efficient and space-saving task.



Temperature sensors

When measuring temperatures, in many applications every degree and every second counts. Our printed sensors detect temperatures directly on the respective object without time delay. For example, we create 10 μm thin sensors that can be directly controlled with the appropriate electronics. When combined with a printed heater, our temperature sensors enable controllable, efficient temperature control in the smallest of spaces.



Electroluminescence

Light. We make surfaces glow and print electroluminescent surfaces directly onto any 3D geometries. Control takes place via specially developed high-voltage converters.

Possible areas of application:

- Automotive industry
- Electrical engineering
- Mechanical engineering
- Medical technology
- Packaging industry

Conductor paths

Our printed conductors take energy right where it is needed. In addition to solid substrates, we also implement solutions for stretchable films. Even when these films expand, the printed conductor paths retain their full functionality. We are happy to realise safety-relevant designs that are optimally adapted to the respective application, for example by means of interrupt contacts

