

# **Biconex – Extreme Lightweight Metal Structures based on Plating on Plastics**

Short Company Presentation, 2024 v.1

# Biconex

High-tech products based on polymers  
with metallic properties



## A proven model for success

Metal-plated polymers are a success story with a decades-long track record in the automotive and sanitation industries. They are used for complex yet high-volume parts which need to fulfil demanding aesthetic criteria and be pleasant to handle.

## A natural connection

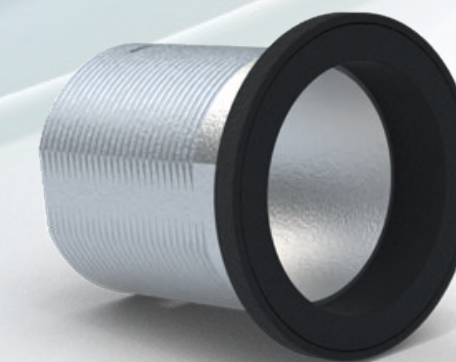
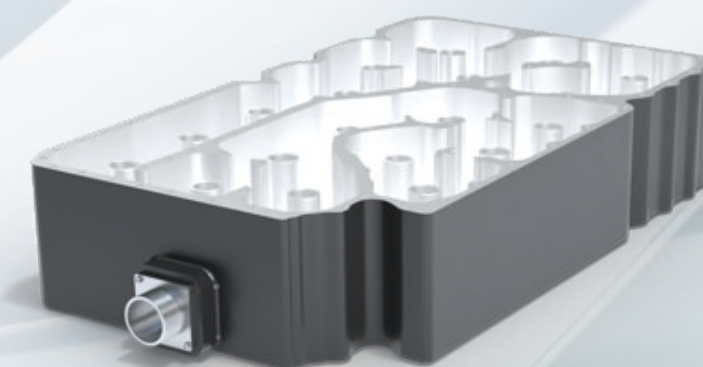
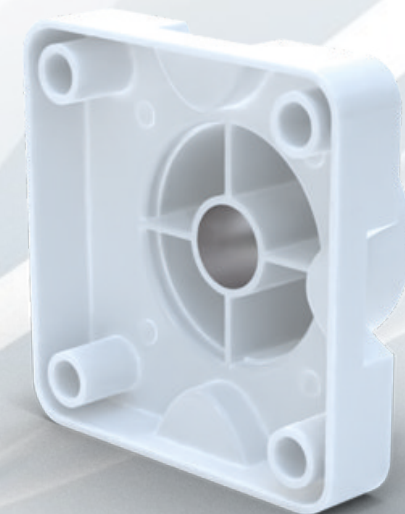
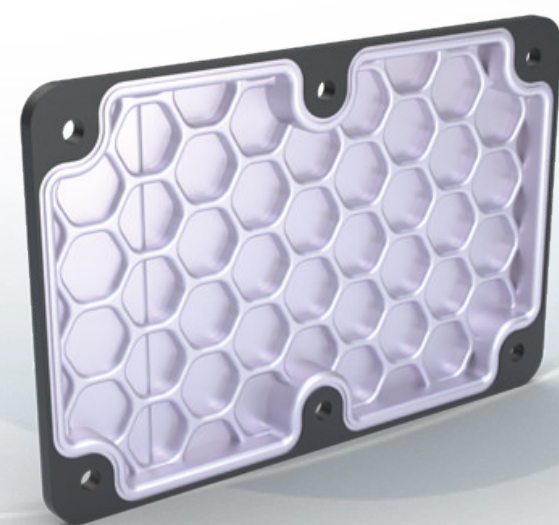
Nature itself shows us the way: the peel of a lemon, the bark of a tree, or human skin. Optimized properties can only be achieved by combining materials in an intelligent way. For metal-plated polymers that means typical metallic qualities like excellent conductivity, wear, and corrosion resistance in combination with outstanding flexibility and precision in shape.

## Added value through function

Metal plated polymers don't just look shiny, but offer diverse functionalities as well. Whether you need light-weight construction, shielded housings, HF-antennas, filters, or components with strong resistance to wear with special vibrational properties, metal-plated polymers are often the best choice.

## Know-how & experience: the key to success

The sheer range of metal-plated polymer options can make choosing between them daunting, but by combining the right polymer with the right manufacturing method and coating technology, we can find the optimal solution for your requirements. With our long years of experience in manufacturing metal coatings on polymers and our expertise in the science and technology behind the process, we can provide exactly the right solution for you across a full range of available technologies.

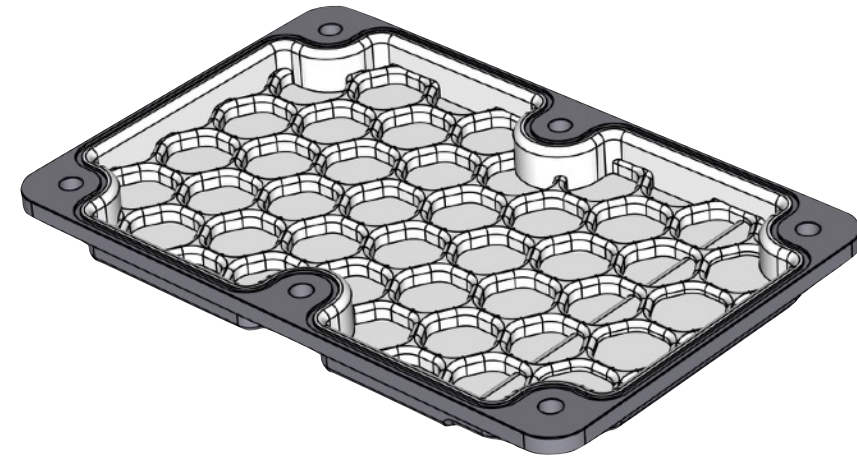


# Biconex

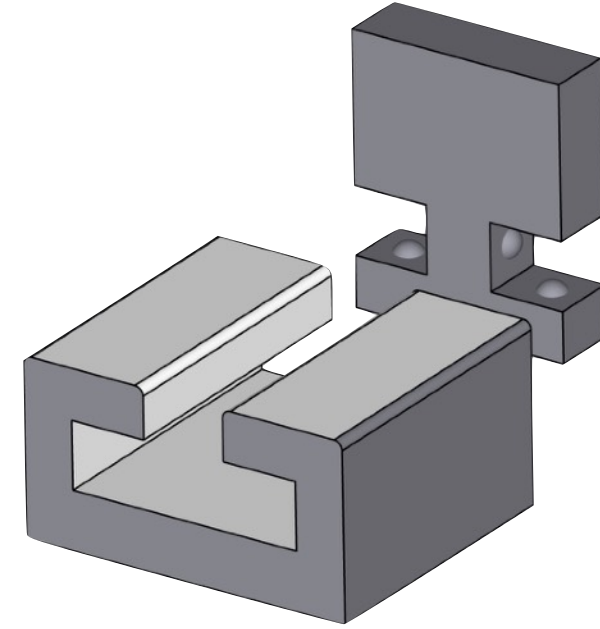
- **Plating specialties in Radeberg near Dresden**
- **High temperature polymers**
- **Technical applications**
- **Development of processes**

- High-Tech company **founded in 2015** by former researchers of the Helmholtz-Zentrum Dresden-Rossendorf, currently 8 employees
- We develop **environmentally friendly** chemical plating processes for polymer parts
- We offer **coating services** for the plating of various polymers or, alternatively, complete coated polymer structures as metal replacements
- We produce under high quality standards for **military** and **medical** applications
- With our partner network we are open to **all types of technology**; for our customers who need metal coatings on polymers we always try to find the best solution
- We offer high volumes through our **production partner for the automotive industry** with all certifications required
- Biconex is a member of the **Ceterum Holding Group**, which has an annual turnover of 300 Mio. Euros in total

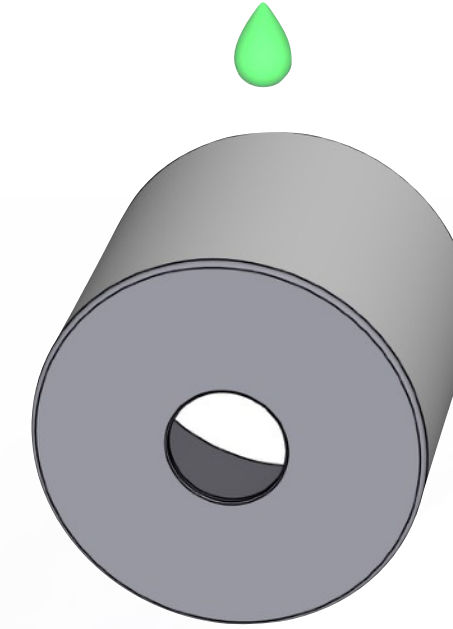
## We replace metal parts



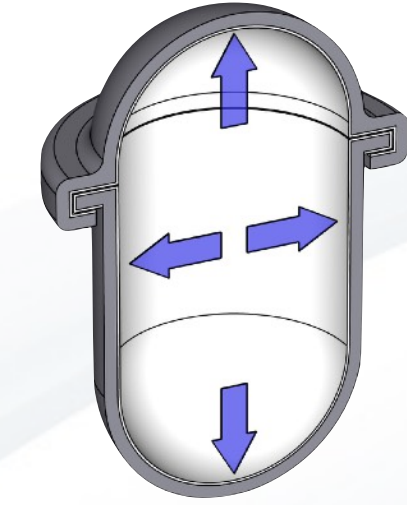
**Light-weight construction  
and complex geometries**



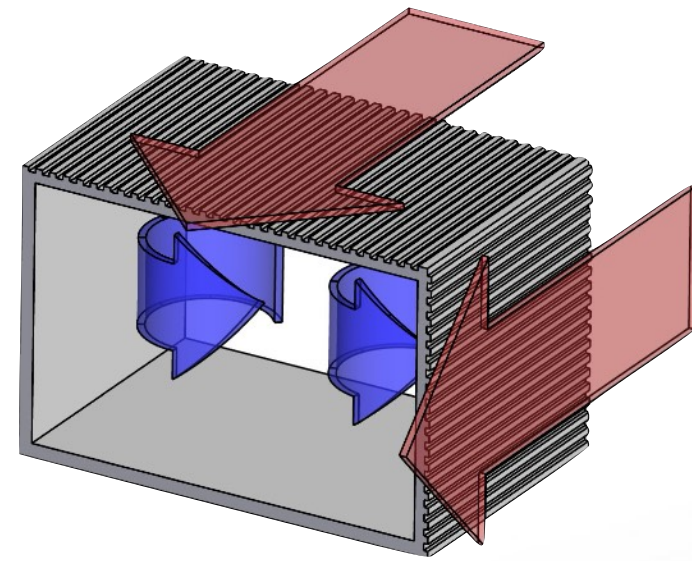
**Wear-resistant  
and low-friction**



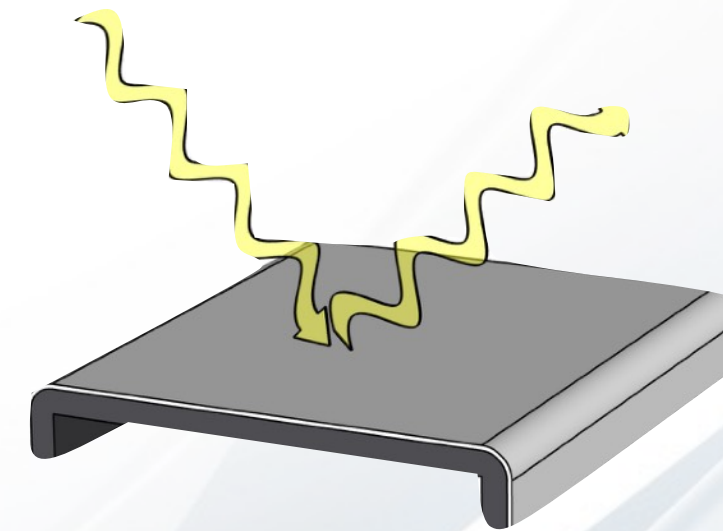
**Resistant to chemicals**



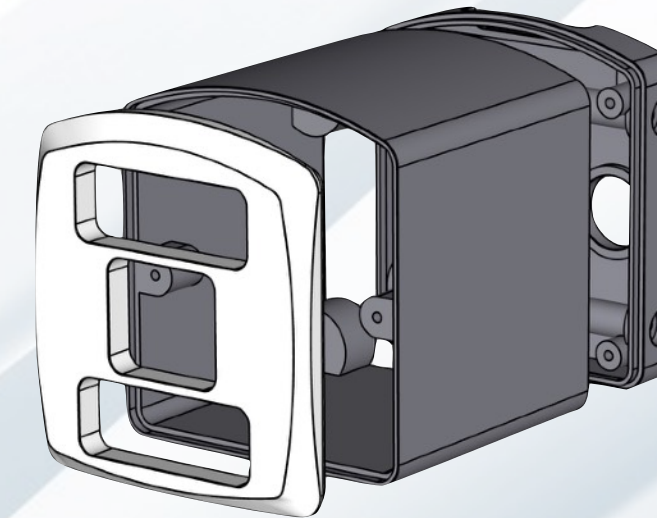
**Gas- and liquid-proof**



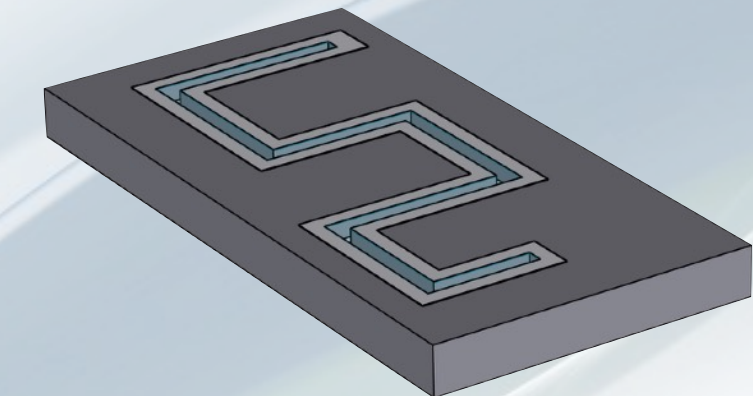
**High thermal  
conductivity**



**Electromagnetic  
shielding (EMI)**



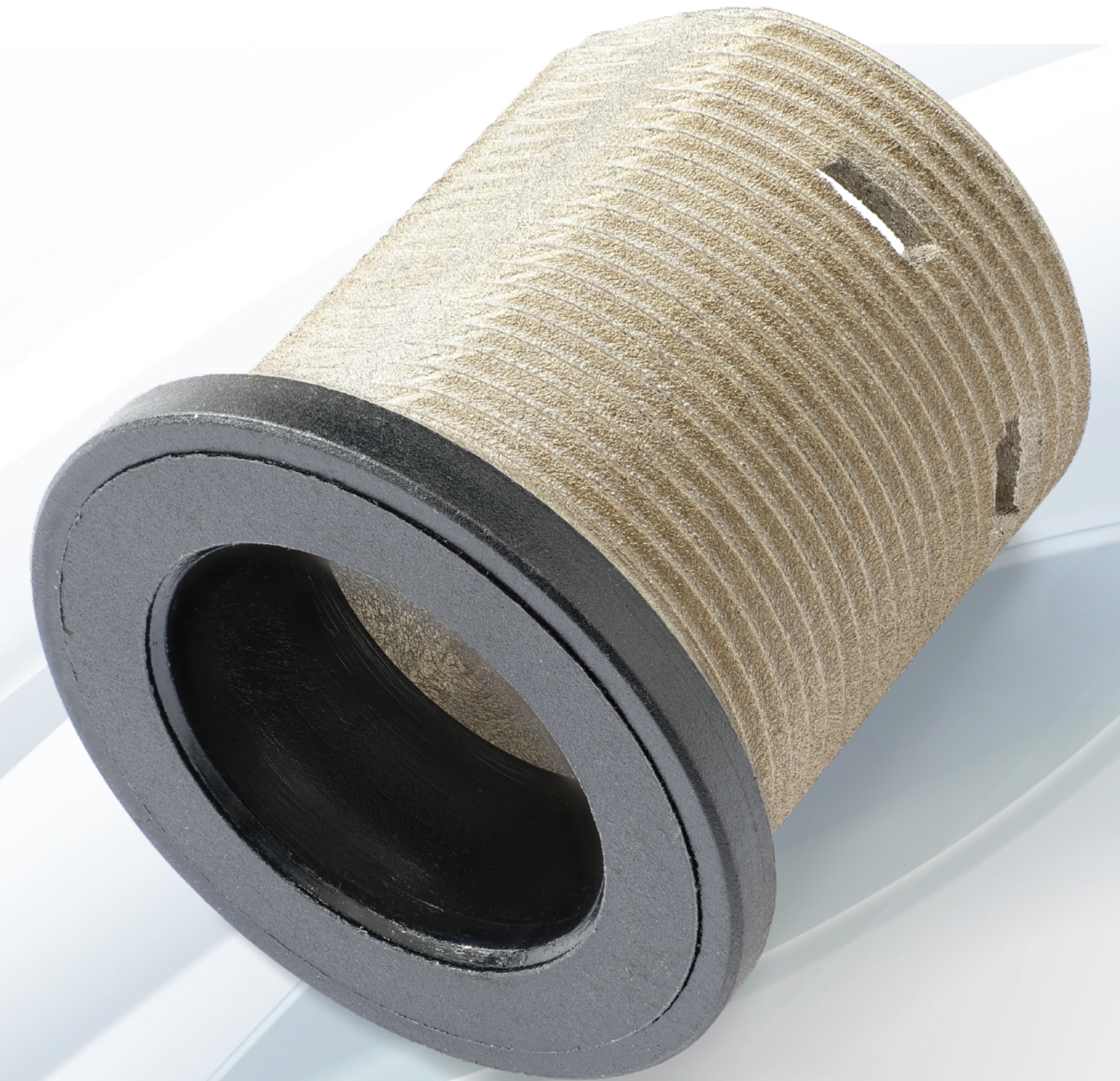
**Exquisite look and feel**



**High-frequency antennas  
and filters**

### Applications

- EMI-shielding
- Electrostatic protection
- High frequency applications (radar antennas, filter)
- Components with metal like heat conductivity
- Components with advanced wear resistance and optimized frictional properties
- Housings resistant to various environmental conditions
- Attractive and valuable look and feel



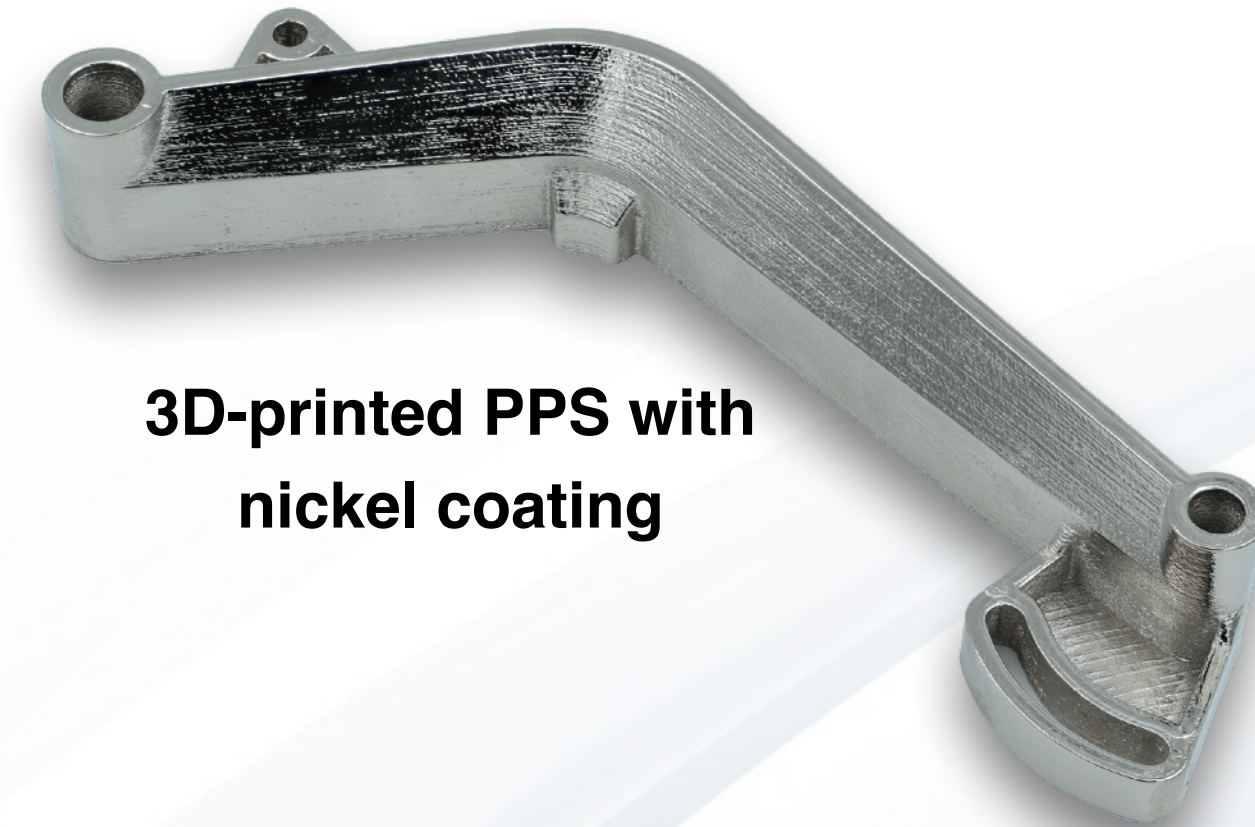
**About Half the Weight of Aluminum**

## For Prototyping or Small Series

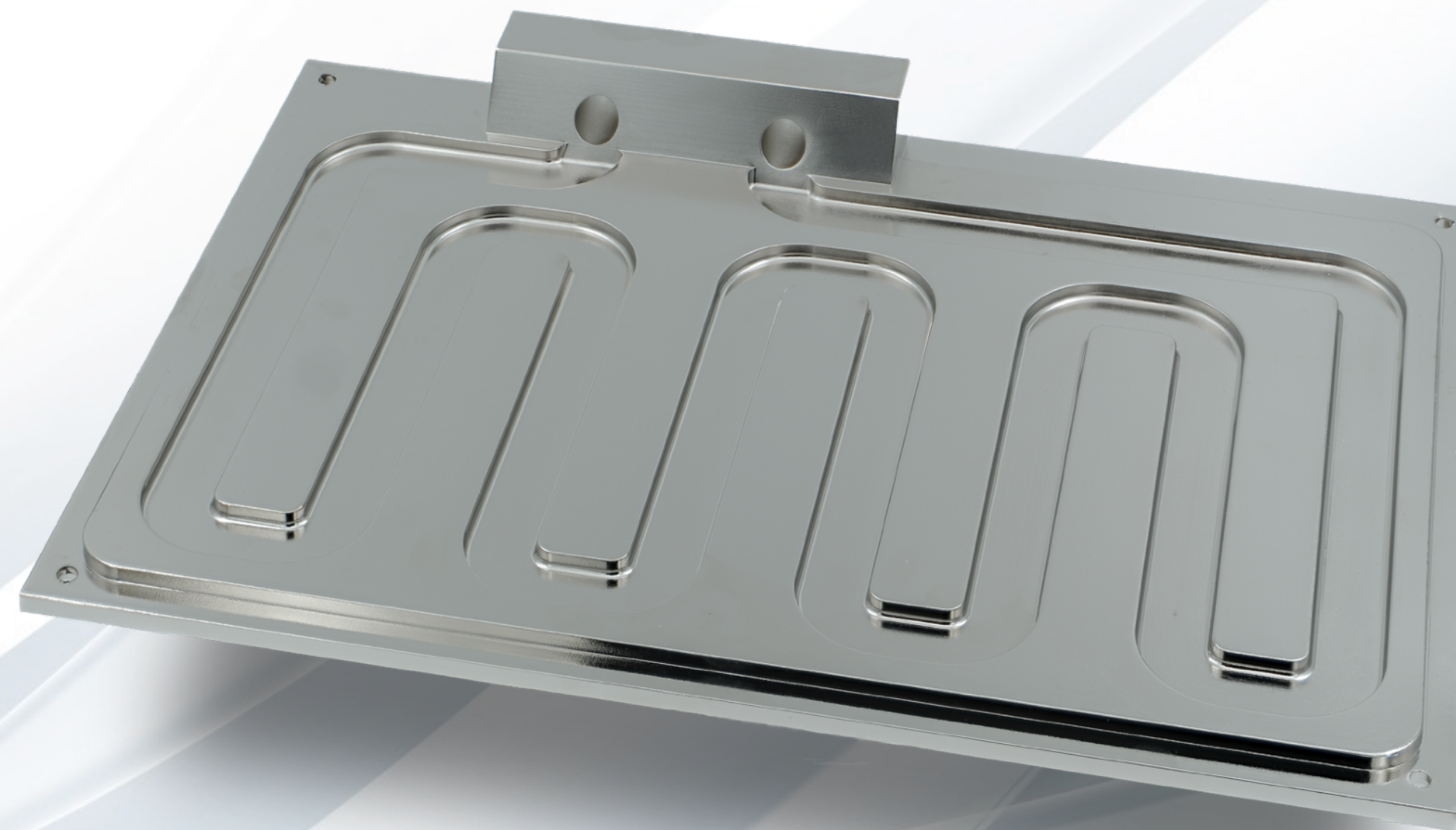
- 3D-Printed Parts from Carbon Fiber Reinforced PPS
- CNC-Manufactured Parts from PPS, PEI or PEEK

## For larger Series

- Injection moulded parts from PA6 and PPS



3D-printed PPS with  
nickel coating



CNC prototype for EV-component



## **Biconex GmbH**

Contact: Dr. Jürgen Hofinger

Heidestraße 70

01454 Radeberg

Telefon.: +49 3528 4155433

<http://www.biconex.de>

E-Mail: [j.hofinger@biconex.de](mailto:j.hofinger@biconex.de)

