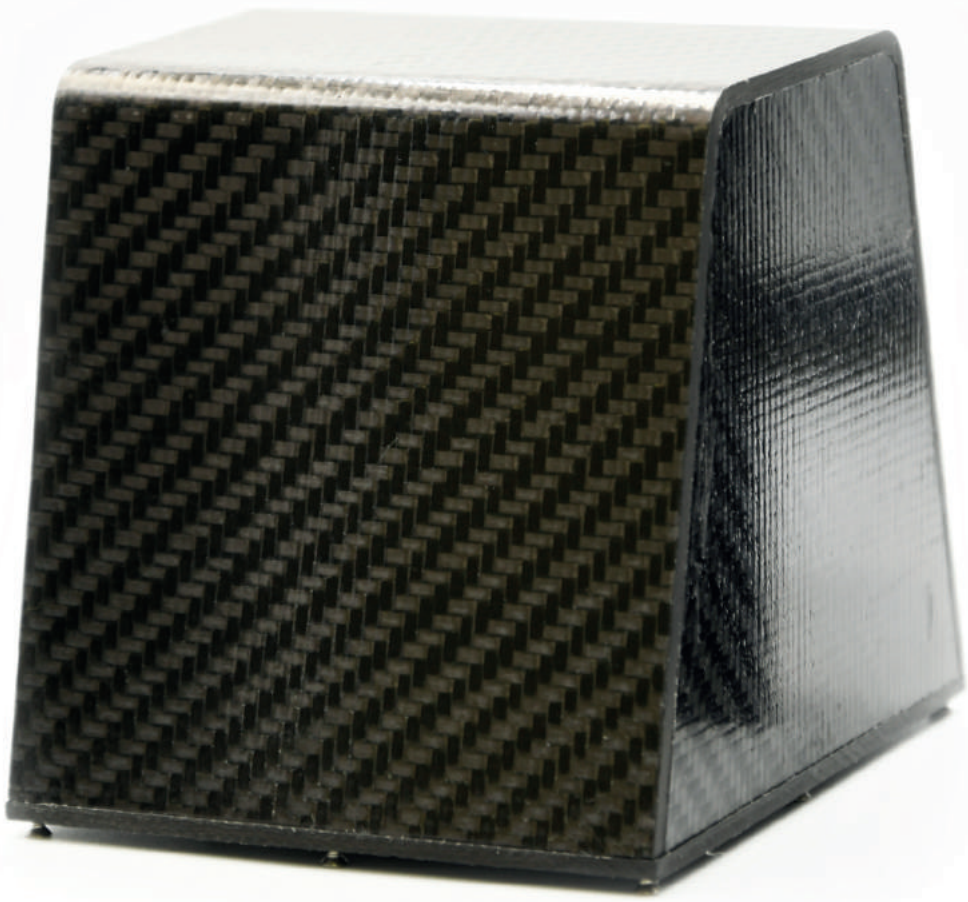
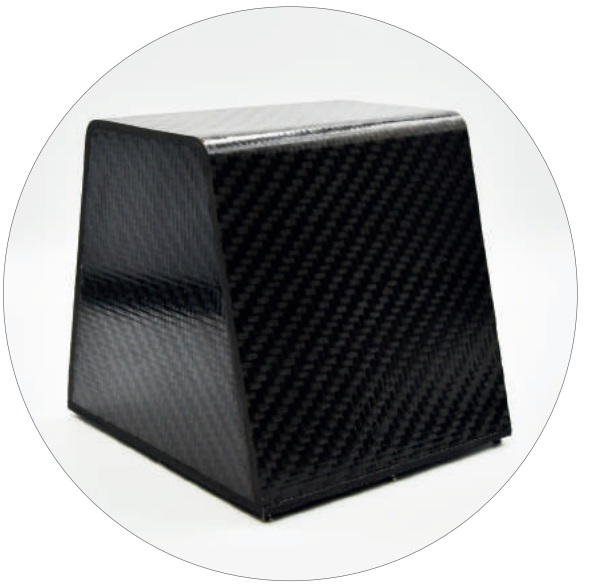
Łukasiewicz
Institute
of Aviation



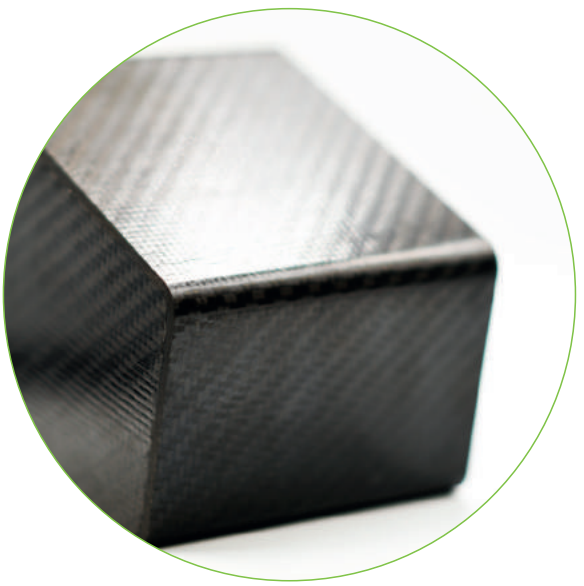
Thermoplastic composite box
for electromagnetic interference shielding

EMI



CHARACTERISTICS

Łukasiewicz – Institute of Aviation has developed an innovative technology for the use of thermoformed carbon fiber reinforced composite materials, for fabrication of lightweight enclosures for electromagnetic interference (EMI) shielding. The enclosures are fabricated using press thermoforming in fast and effective processes.



KEY FEATURES

- Electromagnetic shielding in frequencies range 400 – 3200 MHz.
- Solution lighter than aluminium.
- Easy applicable in light aviation structures like drones or airplanes.
- Fast production rate: thermoplastic composites offer fast production process with utilization of hydraulic press.
- Corrosion resistance: thermoplastic composites don't corrode and offers high chemical resistance, providing durability in harsh environments.
- Joining technology flexibility: bolting, adhesive or welding.
- Recyclability: thermoplastic composites can be recycled into other products by remelting.

POSSIBLE USE

Easy applicable in aviation structures like drones or airplanes.

- Electromagnetic interference (EMI) shielded enclosures and boxes for electronics.
- Protection against interference of avionics components caused by other devices in aircraft structure.
- Protection against external electromagnetic sources.

The Łukasiewicz Research Network – Institute of Aviation
offers a wide range of specialized research, engineering services and products. We provide comprehensive solutions, ranging from dedicated analyzes, simulations, engineering design, through the selection, testing and certification of materials and structures, to rapid prototyping and additive manufacturing.

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