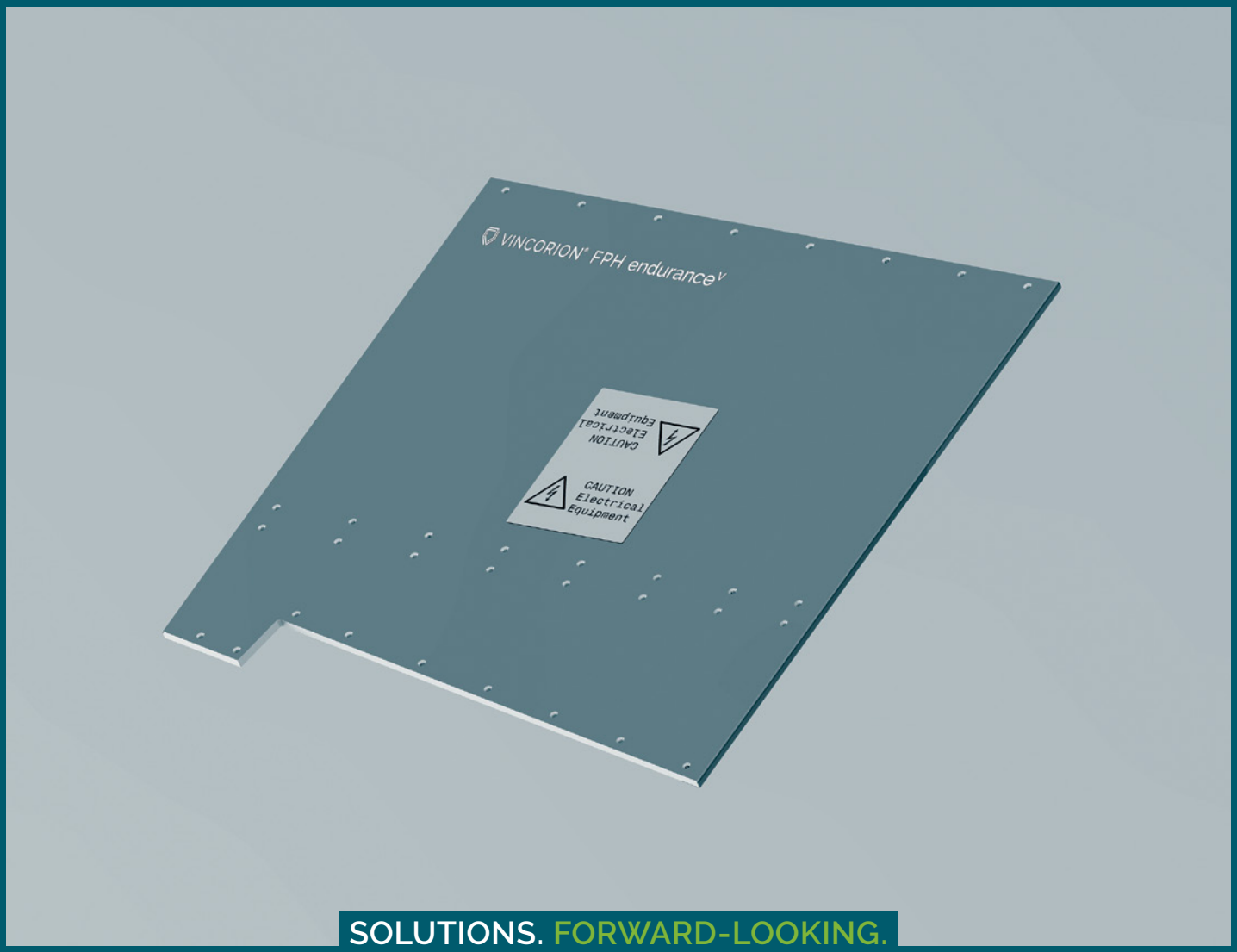
VINCORION®



SOLUTIONS. FORWARD-LOOKING.

AVIATION

ANOTHER STEP TOWARD KEEPING YOUR AIRCRAFT SAFE. VINCORION DURABLE HEATED FLOOR PANELS. SAFETY FIRST. ALWAYS.

FPH endurance^{V} – meet and surpass the demanding safety requirements of the aviation industry.

At VINCORION, our experts plan and implement a large range of aviation systems, subsystems, and components projects for the aviation industry, for both the civilian and military sectors. We offer a wide range of products — from customized heating elements and controllers to complete heating systems. Our aviation systems and components contribute to the safety and comfort of aircraft – thanks to their outstanding level of quality and extreme durability. They fulfill the strict requirements of the aviation industry and are tested under extreme conditions. VINCORION also provides a comprehensive range of services throughout the product life cycle. VINCORION is your ideal partner – thanks to our profound knowledge of all the market's requirements gained through hands-on experience.

FPH ENDURANCE^{V}.
MAINTAINING THE RIGHT TEMPERATURE IN CRITICAL AREAS.

THE RIGHT TYPE OF HEAT IN THE RIGHT PLACES

Maintaining the perfect floor temperature in an aircraft under any conditions is very important for the safety and comfort of everyone on board. FPH endurance^{V} were designed to do just that.

Made of an innovative composite panel construction with an aluminum core, the panels are coated with a Positive Temperature Coefficient (PTC) lacquer that is based on soot nanoparticles. Using a coating instead of a wire guarantees uniform heat distribution over the entire area - even in case of damage.

The PTC lacquer is conductive, with a superior conductivity level at lower temperatures. When voltage is applied, current flows between electrodes and develops heat. With rising temperature, the material extends and electrical resistance rises up to a certain maximum temperature. The higher the resistance, the lower the current flow, which leads to cooling down of the heater. Thus, the panel self-regulates the temperature and actively prevents overheating.

In the event that damage occurs, a safe shutdown of the floor panels takes place via control algorithms in the integrated controller.

Together with an Ice Protection Control Unit and the corresponding Fault Current Sensor, VINCORION offers a complete heating system.

FIELDS OF APPLICATION:

FPH endurance^{V} are tailored to all types of aircraft, including helicopters and customized applications.

BENEFITS AND FEATURES AT A GLANCE

- **Highly corrosion-resistant:** The floor panels are made with an aluminum core with no electrical bonding. Furthermore, the circumferential, closed fiberglass edge ensures complete waterproofness.
- **Easy to repair for reduced maintenance costs:** Impact spots can be filled with a rapid-repair resin sealing kit, hence no removal necessary and the heating function remains.
- **Damage tolerance enhances safety and reliability:** FPH endurance^{V} are built with closed glass-fiber edges, sealed hardpoints without edge filler, and a heating layer that is located below the core plate. Thanks to this layout, they are resistant to impacts during installation, use, and maintenance.
- **No fire or smoke emission:** PTC coating provides uniform heat distribution and is self-regulating to prevent overheating.
- **Lightweight construction:** The current design weight is reduced by 35%.
- **No delamination:** A cut-proof surface ensures functionality of the floor panel even after cutting knife misuse.
- **Easy to install:** Plug and play – no adaption necessary.

Technical specifications

Weight	4.9–5.5 kg/m^2 (depending on configuration)
Power supply	115 V | max. 7.5 A
Power consumption (normal operation)	460 W/m^2

All electrical parameters can be tailored to the customer's specifications (e.g. 230 V or low-voltage applications).

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