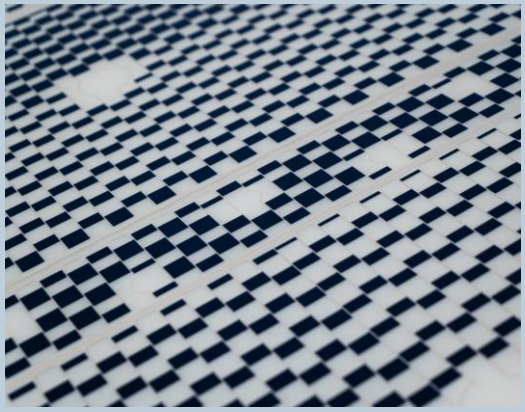
AIRCRAFT FLOOR PANEL HEATERS

Revolutionary Heaters for composite panel integration: Printed Silver and Carbon Ink Technology for Maximum Safety, Reliability and Efficiency.



In the door areas of aircraft, the floor cools down due to thermal bridging to the outer skin, especially on long-haul flights, reducing the comfort of passengers and crew members. Additionally, condensation can form as a result. In the past, the only available solutions to this problem were vulnerable, complex, and heavy heating systems. Furthermore, conventional systems often lack the necessary robustness to withstand the high mechanical and thermal stresses typical in aviation production processes, leading to high rejection rates and reduced lifespan.

EN/AS/JISQ 9100 certified partners manufacture floor panels with our integrated heaters. After a rigorous qualification process, the product was approved for use in series aircraft in 2020, enabling quick implementation.

SPECIFICATIONS

- Voltage Range: 115 VAC, others on request
- Power density: 2.000 W/m², others on request
- Temperature Range: -55 °C to 100°C
- Dimensions: max. 1.350 x 1.000 mm
- Core Temperature: 62°C, others on request

BENEFITS

- Improved passenger and crew comfort due to self-regulating, homogenous heating in the door areas of aircraft
- Prevention of condensation formation, contributing to a more comfortable cabin environment
- Lightweight design, minimizing weight and maximizing fuel efficiency
- Printed NTC temperature sensors can be integrated
- Full integration into the composite floor, making it invisible and highly durable against mechanical and chemical influences
- No control unit required, simplifying installation and maintenance
- High heating performance due to novel high-performance materials, such as carbon- and silver-filled polymers
- High fire protection class, ensuring safety in the aircraft environment
- Fully tested and approved for use in aviation, as well as suitable for use in other industries, such as rail and industrial applications.

CUTTING EDGE TECHNOLOGY

- Our floor panel heaters represent the forefront of heating technology in aerospace. By utilizing cutting-edge printed electronics, we can address common problems such as cold spots and condensation buildup. We also propose new solution strategies based on state-of-the-art and beyond technology.

ABOUT ATT

ATT is a leading provider of surface heating systems utilizing thermoelectric heating polymers. With a focus on the Automotive industry, the company also offers solutions for Aerospace and Architecture applications. In addition to surface heating systems, ATT is continuously advancing their offerings with the development of advanced sensors including ultrathin real-time temperature sensors, hot-spot sensors for batteries, icing sensors for aircraft wings, and printable NTC sensors based on proprietary technologies.

MARKET

Mobility | Healthcare | Traditional Electronics | Furniture & Building | IoT Antennas | Industry | Consumer Goods

FURTHER READING:

https://www.thermaltech.at/aircraft-floor-heating/