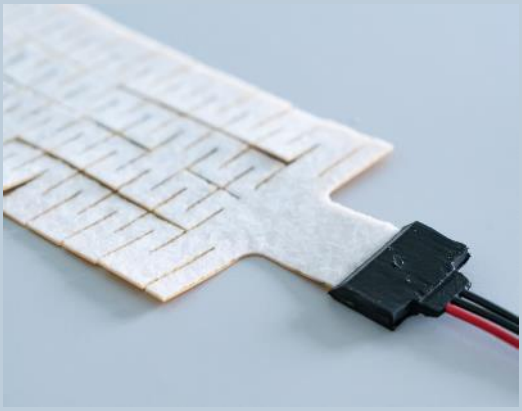
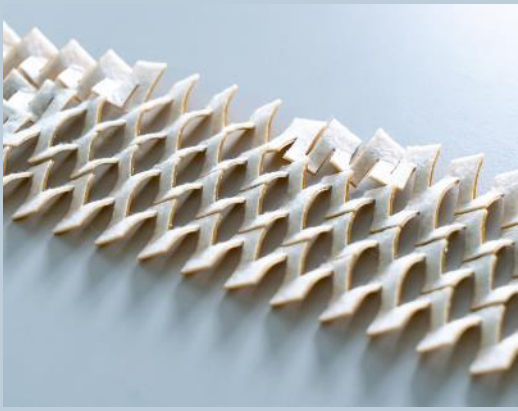
SOFTSURFACE® HEATER

Revolutionary Heaters for soft surface integration: Printed Silver and Carbon Ink Technology for Maximum Safety and Reliability





Introducing our **SoftSurface®** heater, a game-changing solution in the world of heating technology. Our heater is based on cutting-edge printed electronics technology and comes in two variants - the first is a printed silver-based heater that offers a number of advantages over traditional wire-based heaters, while the second variant combines printed silver electrodes with a printed carbon ink layer that features a strong PTC effect. This makes the product incredibly safe, as it can no longer overheat on its own. Optional, instead of a standard NTC sensor, a printed NTC sensor based on our patented **NTCSense®** technology can be integrated into both variants, providing reliable temperature detection and deviations on the whole surface of the heater.

SPECIFICATIONS

- Voltage Range: 9 VDC up to 70 VDC
- Power density: up to 5.000 W/m²
- Temperature Range: -40 °C to 100°C
- Ingress Protection: IP68
- Cable Pull-Off Force: > 300 N
- Integration Method: Adhesive or in-Mold Integration
- NTC Sensor Precision: +/- 1 K

BENEFITS

- Cost-effective alternative: The printed silver-based heater offers a cost-effective alternative to traditional wire-based heaters, making it a budget-friendly option for car manufacturers
- Improved temperature detection: The optional printed NTC sensor provides reliable temperature detection and/or deviations on the whole surface of the heater, making it more effective than traditional NTC sensors that only measure temperature at very tiny spots.
- Improved efficiency: Both variants of the armrest heater are based on printed electronics technology, making them more efficient and versatile than traditional wire-based heaters.
- Increased safety: The carbon ink variant of the armrest heater features a strong PTC effect, which means it can no longer overheat on its own. This makes it a safer option compared to traditional wire-based heaters.

CUTTING EDGE TECHNOLOGY

- Patented technology **NTCSense®**: The printed NTC sensor is a patented technology developed by the company, making it a unique and valuable addition to the **SoftSurface®** heater product line.

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/vehicle-cabin-heating/