



*closing the loop on thermal solutions*

ISO 9001 REGISTERED COMPANY

[www.durexindustries.com](http://www.durexindustries.com)

## Battery Heating and Thermal Management Solutions



Low temperatures, thermal cycling extremes, discharge and recharge temperatures will impact battery efficiency, amp-hours discharge capacity, lifetime, as well as rechargeability. For cold temperature and cold weather usage, battery warmers, battery warming systems, or battery heaters in various forms ensure long battery life and optimal recharge and discharge performance.

### Thermal Solutions for Battery Applications

For over 40 years, Durex Industries has provided high performance bespoke warming elements and heating solutions of the highest quality for energy storage applications in transportation, aviation, industrial equipment, EV, and electronics equipment OEMs as well as for Aftermarket applications.

#### BENEFITS TO BATTERY WARMING

- Extended usage lifetime due to better thermal management
- Enables proper recharges without impacting battery life & performance
- Extends cell life and evens out cell aging
- Improves charge times
- Provides freeze protection

#### BATTERY TYPE SOLUTIONS

- Lithium-ion (Li-ion) Batteries
- Nickel Metal Hydride (NiMH or Ni-MH) Batteries
- Nickel Cadmium (NiCd or Ni-Cad) Batteries
- Lead Acid Batteries
- Other Energy Storage Platforms

#### TYPICAL BATTERY HEATER APPLICATIONS

- Legacy Transportation Applications
- Electric Vehicles & Transportation
- Emergency Electric Power Back-Up Systems
- Aviation, Marine and Telecommunications Equipment
- Generator Batteries
- Energy Storage Batteries
- Military Field Equipment
- Medical Equipment
- Portable Power Equipment
- Off Grid Stations & Battery Back-ups
- Rail Traffic
- ATVs
- Cold Weather Kits
- Weather Stations
- Light Boxes & Towers
- Power Distribution & Transformers
- Cameras & Surveillance

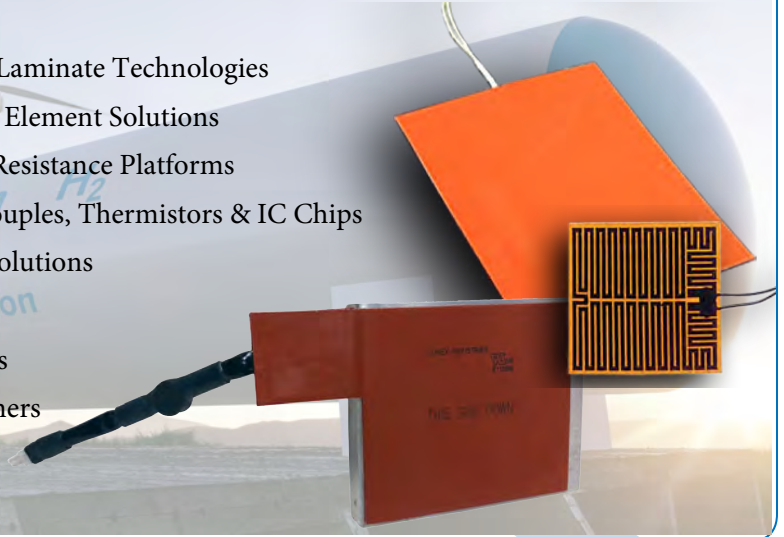
# Battery Heating and Thermal Management Solutions

## BATTERY HEATING TECHNOLOGIES

Experience Durex's engineering-forward, collaborative development process to overcome your most challenging battery warming requirements. We design and manufacture all flexible heater, sensor, and control solutions in Illinois, USA. We are your "local" high reliability supply chain partner for North America.

### Product Technology Solutions

- Silicone Rubber, Polyimide, Neoprene and Mica Laminate Technologies
- Etched Foil, Wire Wound and Hybrid Resistance Element Solutions
- Self-Regulating PTC or Constant Power Output Resistance Platforms
- Temperature Sensors including RTDs, Thermocouples, Thermistors & IC Chips
- Integrated Heating & Temperature Monitoring Solutions
- Silicone Rubber Battery Heater Pads
- Silicone Rubber Battery Heated Plates & Pedestals
- Silicone Rubber & Neoprene Battery Wrap Warmers
- Foam Insulated Sleeves
- Integral, Self-Insulating Foam Battery Heaters



## BATTERY HEATING OPTIONS

- Low & High Wattage Solutions, Dependent on Applications
- Voltages from <1V to 600V in both AC & DC Applications
- Integral Temperature Monitoring & Control
  - › RTD, Thermistor, IC and Thermocouple Temperature Sensors
  - › Auto-Reset & Manual-Reset Thermostats
  - › Single-Use & Safety Thermal Fuses
- Wide Variety of Power Lead Termination Styles & Wire Harness Options
- Factory Bonding to Parts or Self-Adhesive PSA Bonding Systems
- Removable Attachment Methods
- Structured and 3-D Foam Insulated Solutions

## THE DUREX DIFFERENCE

We are a customer-centric organization focused on serving you, your team, and your organization. We specialize in engineer-to-engineer, collaborative solutions development. Reach out to us today and experience the Durex Difference! An application engineer or design engineer is ready to quickly take your call or respond to your email and get to work for you.



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Visit us online at: [www.durexindustries.com](http://www.durexindustries.com) or e-mail: [sales@durexindustries.com](mailto:sales@durexindustries.com)

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