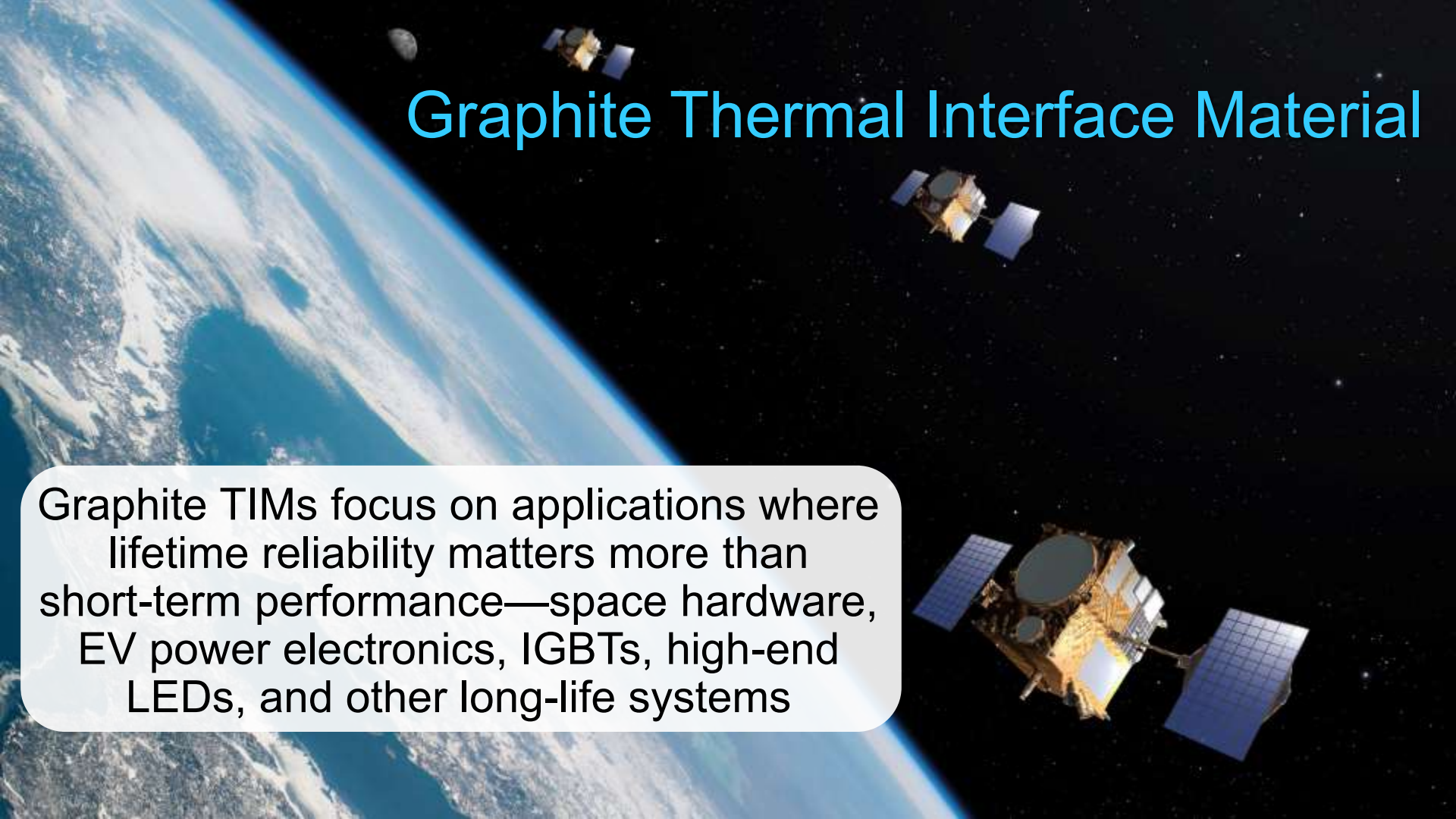
THERMAL MANAGEMENT EXPO NORTH AMERICA

eGraf® HiTherm™ Graphite Thermal Interface Materials
Power Electronics & Aerospace Perspective

May 5th, 2026

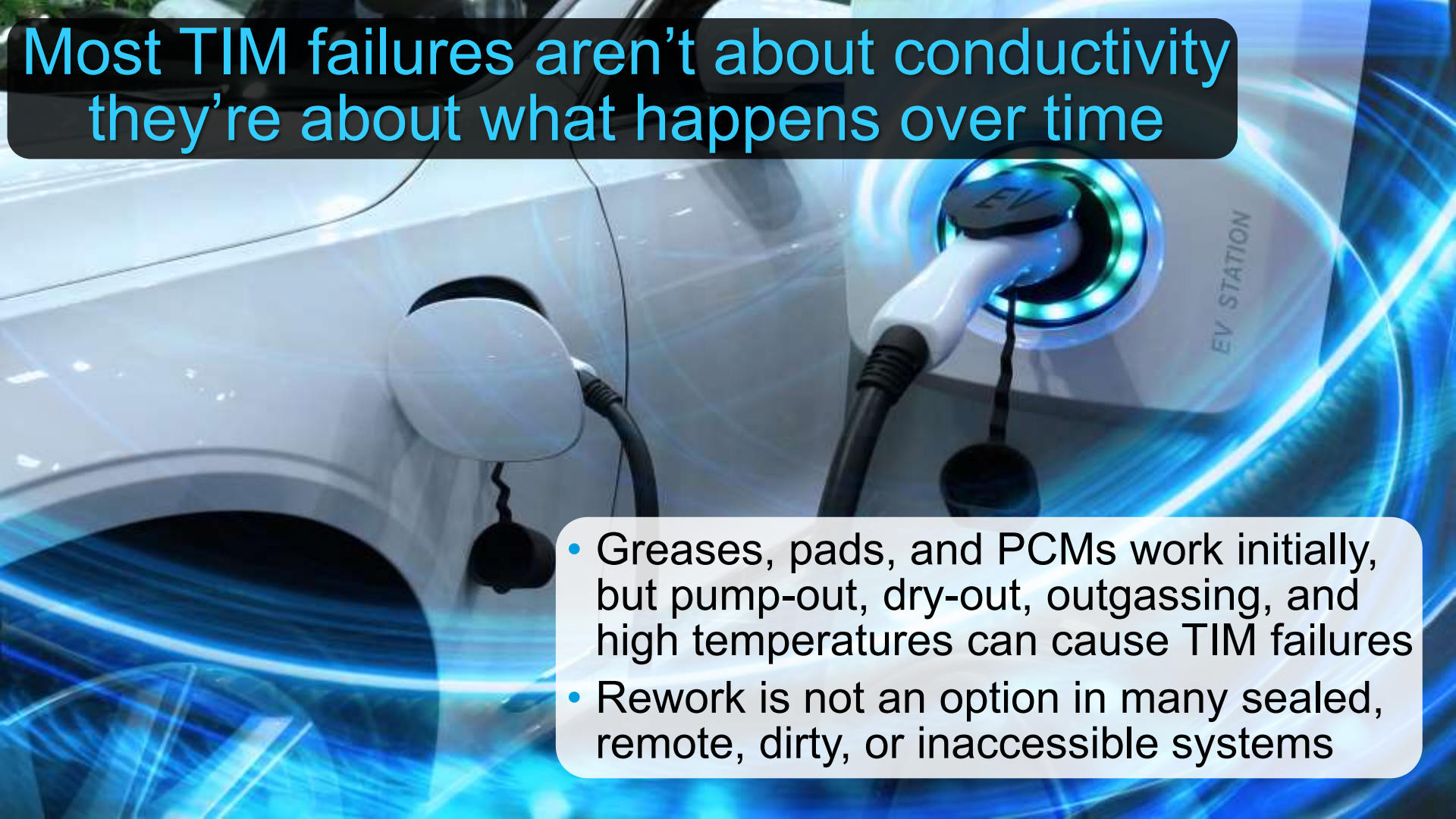
NeoGraf Solutions, LLC

Graphite Thermal Interface Material



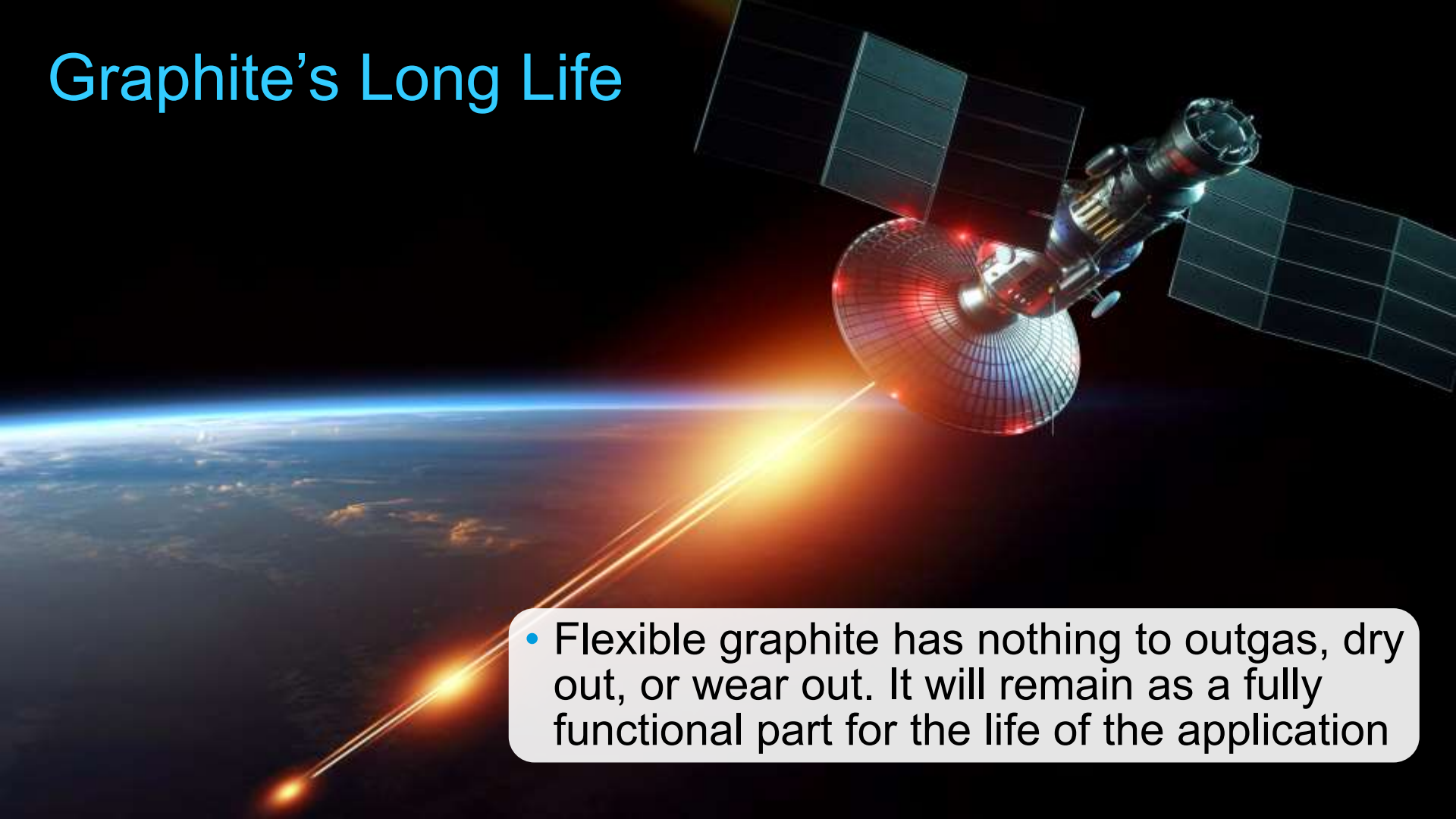
Graphite TIMs focus on applications where lifetime reliability matters more than short-term performance—space hardware, EV power electronics, IGBTs, high-end LEDs, and other long-life systems

Most TIM failures aren't about conductivity they're about what happens over time



- Greases, pads, and PCMs work initially, but pump-out, dry-out, outgassing, and high temperatures can cause TIM failures
- Rework is not an option in many sealed, remote, dirty, or inaccessible systems

Graphite’s Long Life



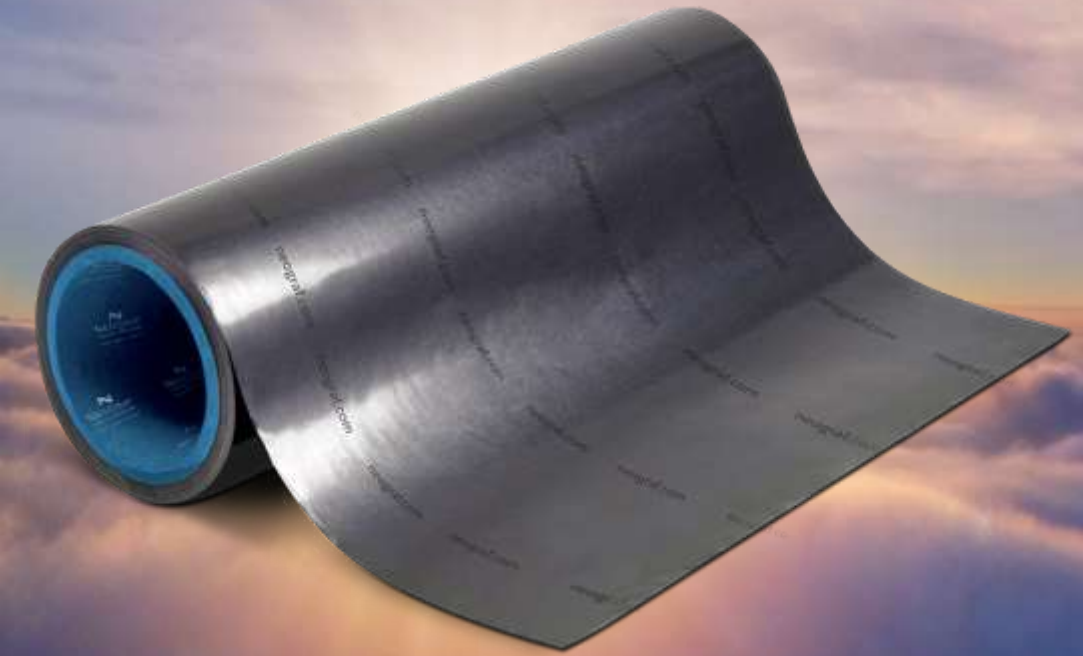
- Flexible graphite has nothing to outgas, dry out, or wear out. It will remain as a fully functional part for the life of the application

Graphite’s Temperature Insensitivity



- In a vacuum, flexible graphite has a max. temperature limit of ~2800°C
- Flexible graphite has virtually no lower temperature limit

Solid-State Graphite Thermal Interface



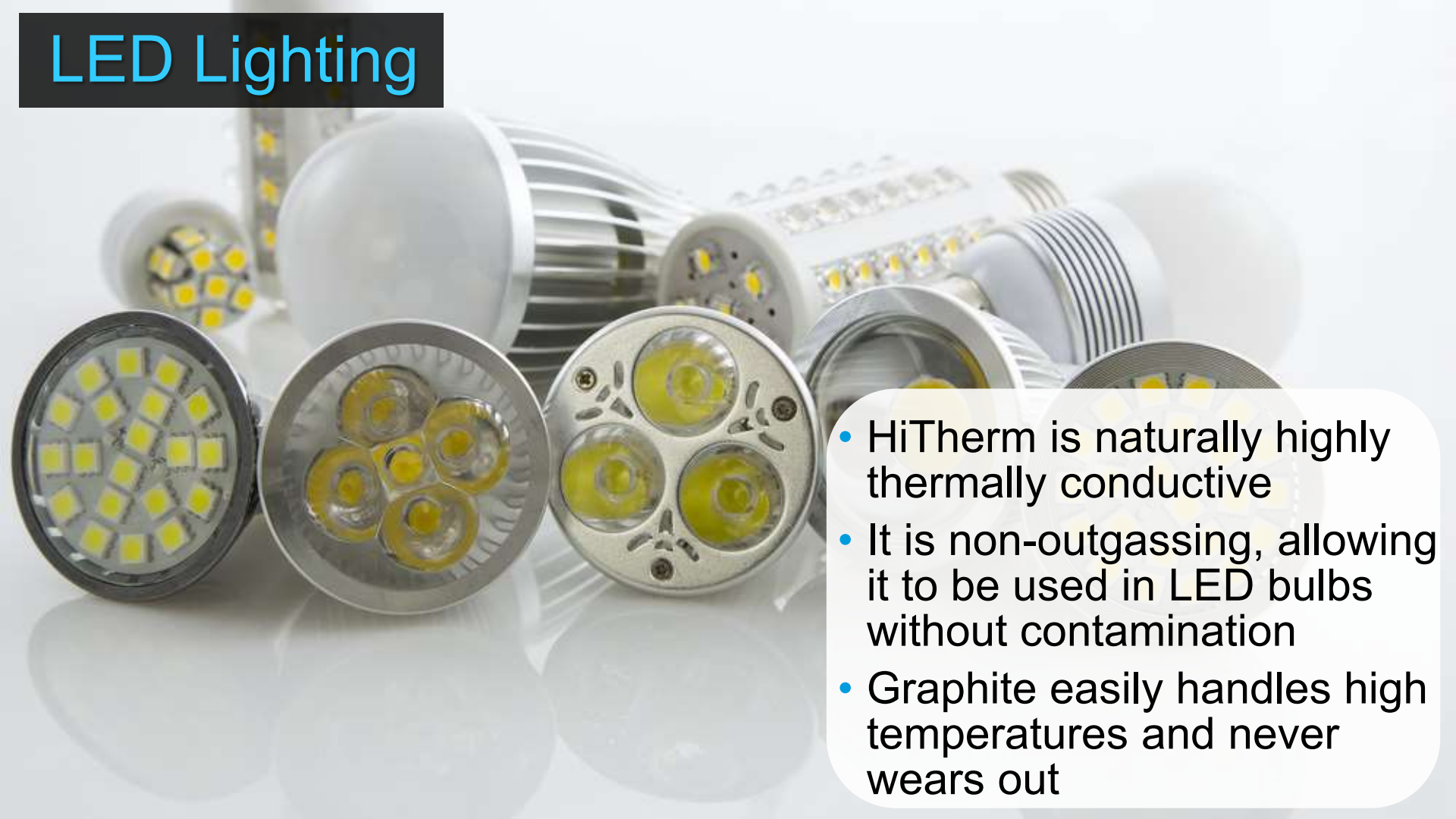
- HiTherm™ is a flexible sheet of engineered graphite
- Conforms under pressure to fill microscopic air gaps
- No curing, no maintenance
- Supplied as rolls, die-cuts, or peel-n-stick parts
- Graphite TIMs have an unlimited service lifetime

IGBTs / Inverters / Rectifiers

- These are high-power electronic switches and power conversion devices
- They typically have long lifetimes in vibration-heavy devices and can run very hot
- Grease or PCMs will dry out and must be replaced periodically
- Graphite is designed to last the lifetime of the IGBT, Inverter, or Rectifier



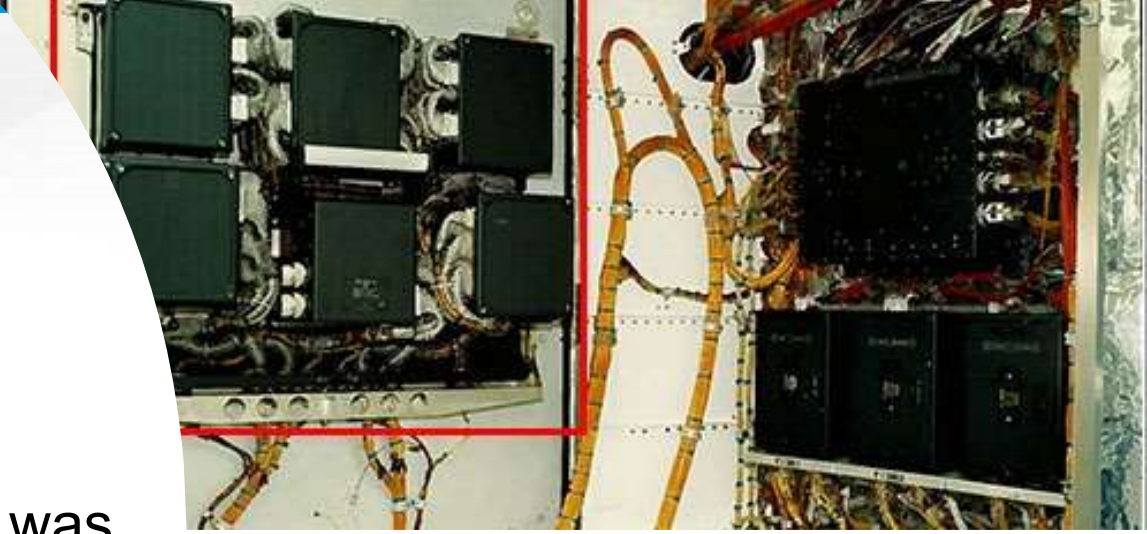
LED Lighting



- HiTherm is naturally highly thermally conductive
- It is non-outgassing, allowing it to be used in LED bulbs without contamination
- Graphite easily handles high temperatures and never wears out

Hubble Space Telescope

In 2009, HiTherm HT-1205 Thermal Interface Material was used for thermal management on the retrofitted “Science Data Formatter” on the Hubble Space Telescope.





International Space Station

In 2011, HiTherm HT-1205 was used to solve a thermal issue on the International Space Station.

HiTherm won’t ever outgas or wear out, making it perfect for most challenging long-term TIM applications.



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