MINERALS ARE CRITICAL TO A RENEWABLE FUTURE

GRAPHITE

Much bolder than your No. 2 pencil

GRAPHITE
C
6
12.011

Scientific Properties

- Conducts heat
- Conducts electricity
- Non-reactive
- High thermal resistance
- Lubricity
- Light-weight

Uses for Graphite in the U.S.

BATTERIES

Graphite anodes are used in lithium-ion batteries, and highly conductive and lightweight graphite plates are used in proton exchange membrane fuel cells. You'll also find it lining car brakes.

MATERIALS

Graphite is used in manufacturing processes from steel and glass making to iron casting. For example, it is used to cast silicon in solar panels while also providing a heat shield and thermal insulation. Highly concentrated, ultra-strong, honeycomb sheets of graphite called graphene are used to make sports equipment.

LUBRICANTS

Graphite is used in high-temperature lubricants that can be in dry or liquid form.

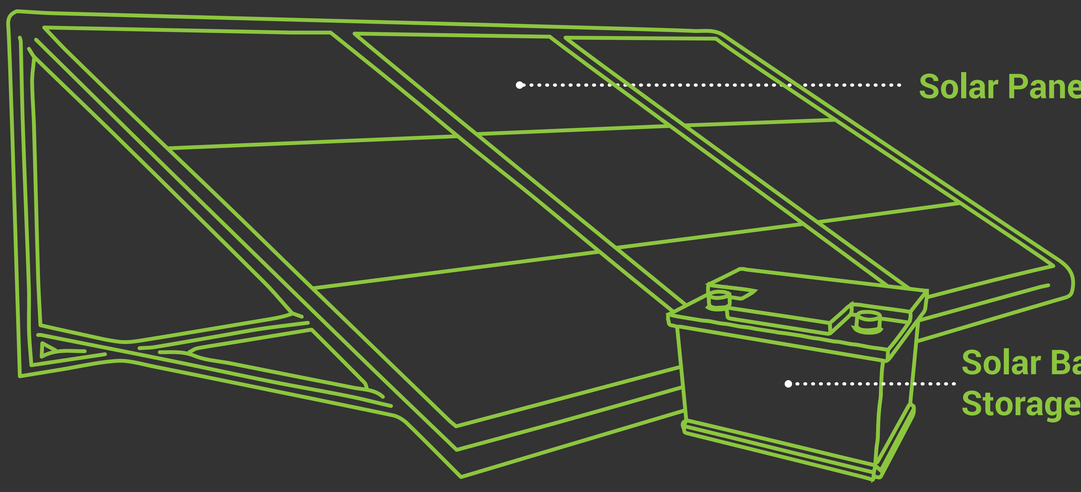
PENCILS

Pencil cores are made of a mixture of graphite and clay. Graphite flakes make the marks and clay binds them to paper.

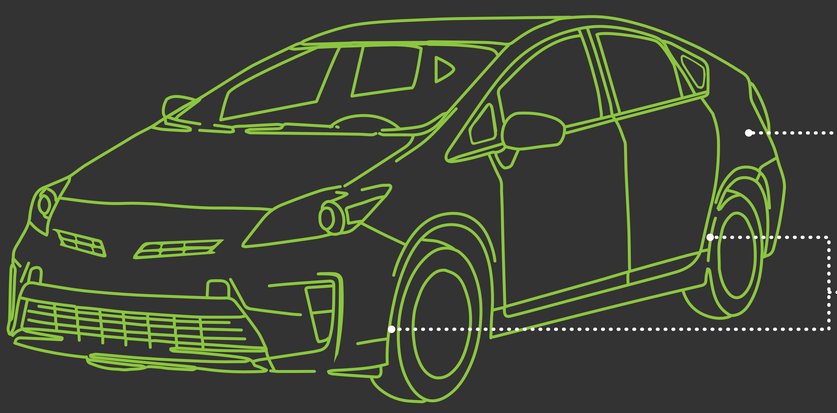
Even green tech generates waste

Considering that fewer than 5% of lithium-ion batteries were recycled worldwide in 2019, we can all do better at recycling the **graphite** already mined and reduce e-waste.

Graphite in Solar Energy



Graphite in Electric Vehicles



For more information, visit https://www.blm.gov/alaska/minerals

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