

# Silicon-Dioxide/Lead Crystal Extreme Performance Batteries

Add to the freedom and joy of worry-free travel with extreme performance batteries that give you peace of mind for performance and longevity in all-weather conditions.

Silicon-Dioxide Batteries in your RV, home, and equipment decrease maintenance, increase usable, reliable power & reduce lifetime costs.



6V & 12V OPTIONS



NO FREEZE



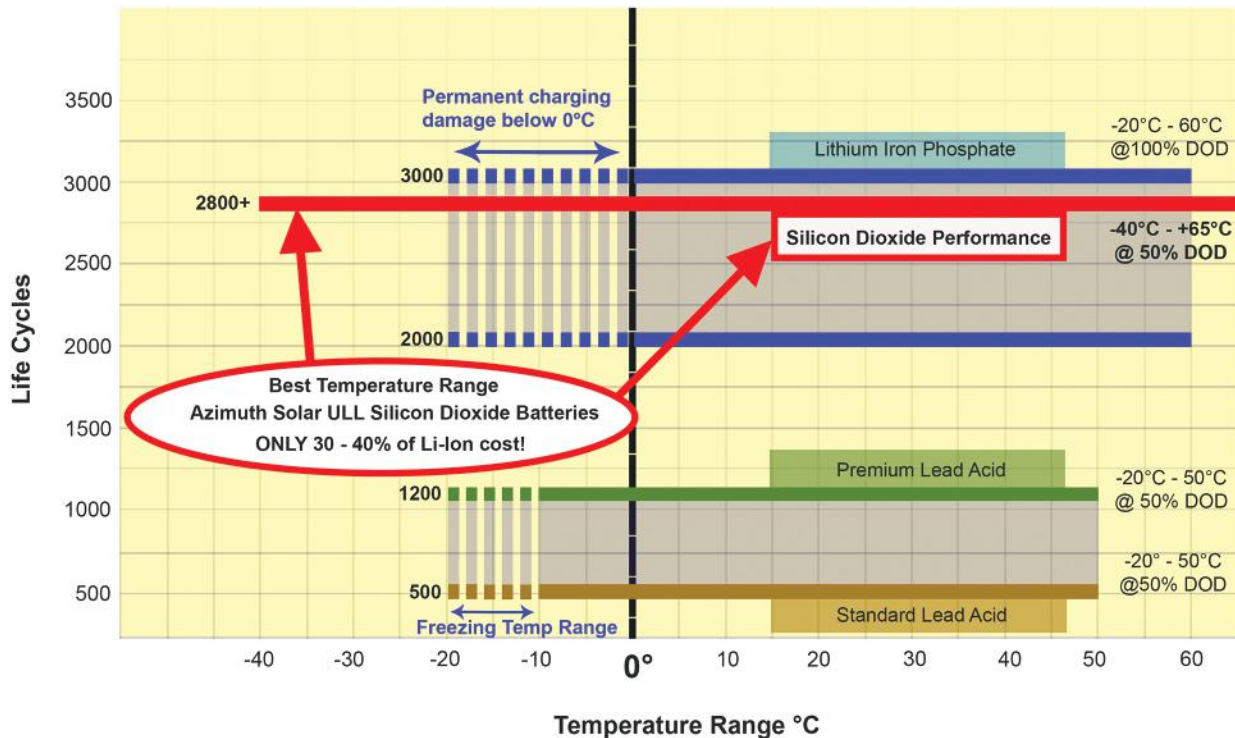
99% RECYCLABLE



NO MAINTENANCE

- Up to **5x Service-Life** of Standard Deep-Cycle Batteries
- **Zero Maintenance:** No water-level checks & acid splashing.
- Extreme Temperature Range: **-40C/F to +65C. No Freezing!** Outperforms Lithium-Ion and Lead-Acid Batteries.
- **2x faster charging** than Lead-Acid; less generator & fuel use or utility power wait time. 3 hrs vs. 5-7 hrs w/ Regular Batteries
- Able to fully recover with daily 100% discharge & recharge.
- Dependable **2 year shelf-life** without float-charging.
- **Environmentally Friendly:** 99% Recyclable, with almost no acids. No Cadmium or Antimony!

## Deep-Cycle: Life & Temperature Range Comparison



**Azimuth  
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# General Information: Silicon-Dioxide/Lead Crystal

6V GC2H 260Ah (10.2 x 7 x 10.9"; 260 x 180 x 278mm)  
12V 5Ah to 270Ah available



## Cost:

Approximately 30%-40% of Lithium Iron Phosphate (LiFePO<sub>4</sub>) batteries, resulting in a lower lifetime cost than Lithium or standard Lead-Acid deep cycle batteries.

## Charging:

Most standard chargers will work with these batteries.

Ideal Bulk charging for Lead Crystal, SiO<sub>2</sub> batteries is 14.4V – 14.7V, with 14.6V optimal.

The charge rate is best with a 0.25C – 0.3C current (25%- 30% capacity rating; 3.4-hr rate).

De-sulphation cycling is not required.

## Electrolyte Technology:

Silicon-Dioxide "Lead-Crystal" batteries use a micro-particle composite SiO<sub>2</sub> electrolyte developed to replace the traditional sulphuric acid solution. When charged/discharged the liquid electrolyte transforms into a crystallized state leaving nearly zero free liquid electrolyte in the battery, effectively resulting in a dry cell.

## Battery Transport:

SiO<sub>2</sub> batteries are considered safe, non-hazardous goods for airfreight and shipping.

These batteries do not fall under the dangerous goods classification for marine or overland shipping due to the non-corrosive electrolyte composition.

## Orientation:

The dry cell batteries can be safely used on their sides and will not leak.

## Recycling:

These batteries can be taken to regular battery recycling facilities, and recycled by standard methods used for Lead-Acid batteries.



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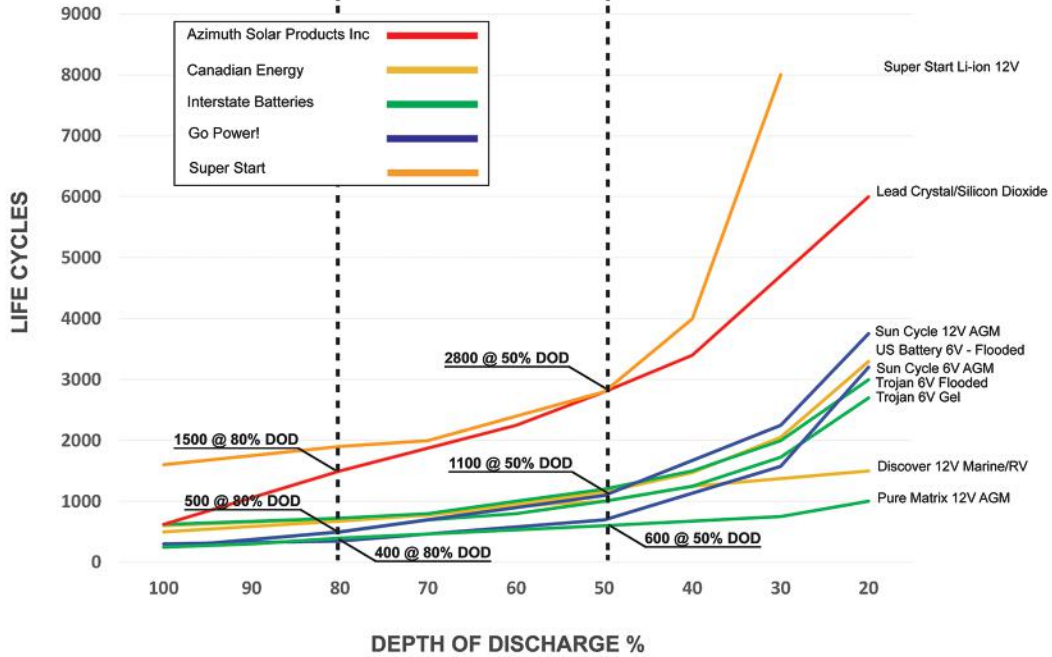
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# Battery Comparison Charts for Silicon-Dioxide/Lead Crystal



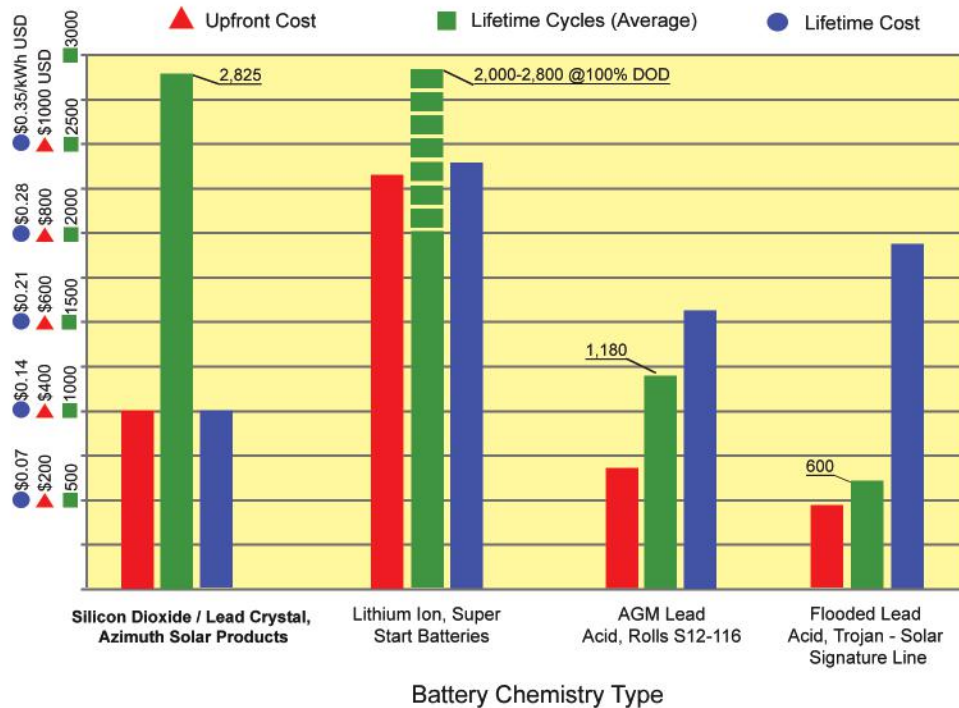
## HOW DO WE COMPARE?

### Life cycles vs Depth of Discharge of Competing Batteries



\* Data from original sources.

### Comparison of Lifetime Cost of Battery Chemistry Types at 50% Depth of Discharge



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# Who Are We? Azimuth Solar Products Inc.

Azimuth Solar Products can provide a wide variety of solar kits and custom solar power systems for RVs, cabins and recreational use. We have wholesale pricing and marketing materials that can be customized for your company. North American and Caribbean sales.

## Our product lines include:

- Freeze-proof, zero maintenance SiO<sub>2</sub> deep-cycle batteries in 6V and 12V options.
- Lithium-Ion Silent Portable Generators (2kWh to 6kWh systems)
- Solar Kits for RVs and Campers
- Portable Folding Solar Panels
- Flexible and Standard Glass Solar Panels
- DC to AC Inverters - Pure Sine Wave
- Solar Charge Controllers
- All-in-one AC Battery Charger, Solar Charge Controller and AC Inverter Systems
- Solar mounting systems, including drill-free mounts, quick-clips for removable panels, and dual tilt mount options.
- Solar cables, connectors, and fuses.

We are currently in development of sub-zero Lithium-Ion battery packs. (Standard Lithium-Ion batteries cannot be charged below 0°C without permanent battery damage.)



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