

The Importance of Testing PV Batteries to the IEC 61427 Standard

The International Electrotechnical Commission's (IEC) standard 61427 provides performance criteria that all batteries for PV applications can and should be measured against. IEC testing illustrates that Trojan's Solar Industrial and Solar Premium batteries can withstand extreme operating conditions where continuous deep discharge, recharge, and Partial State of Charge is typical.

Service Life Expectancy per IEC Standard 61427 Test Results



TROJAN BATTERY
Solar Premium Line



TROJAN BATTERY
Solar Industrial Line



Watch and Learn more about Smart Carbon
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Trojan's
Intelligent Solution for **PSOC**
Partial State of Charge Applications



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Trojan's
Intelligent Solution for **PSOC**
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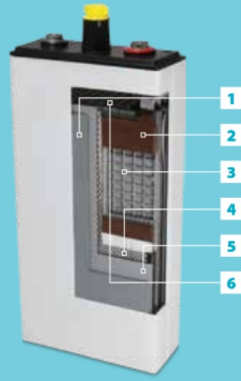


To address the impact of Partial State of Charge (PSOC) on deep-cycle batteries in renewable energy (RE), Trojan Battery has now included Smart Carbon™ as a standard feature in its Solar Industrial and Solar Premium flooded battery lines.

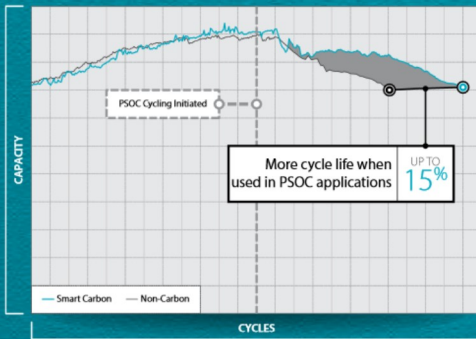
Operating at PSOC on a regular basis can quickly diminish the overall life of a battery, which results in frequent and costly battery replacements. To address the issue of PSOC, Trojan is the first manufacturer to include a carbon additive as a standard feature to enhance battery life and performance.

Smart Carbon provides:

- A decrease in the rate of sulfation in PSOC conditions
- Improved charge acceptance
- Faster recharge in PSOC applications
- High energy efficiency



SMART CARBON CYCLE LIFE in Partial State of Charge (PSOC) Applications



SOLAR INDUSTRIAL LINE 3,600 CYCLES @ 50% DOD - 10 YEAR WARRANTY

The Solar Industrial Line is engineered specifically to support renewable energy systems with large daily loads where the batteries are cycled regularly.

Smart Carbon

Increases the electrochemically active surface area which provides improved charge acceptance and faster recharge in applications where the batteries are under charged on a regular basis.

Alpha Plus® Paste with T2 Technology™

A proprietary, high-density paste formulation precisely engineered to deliver outstanding battery performance.

DuraGrid™ Technology

Features a thick grid structure which maintains greater corrosion resistance, effectively increasing the life of the battery.

Reinforced Protection Wrap

Protects against shedding and assures the electrochemical performance of the battery's active material.

Maxguard® XL Separator

Features a wide-channel design that increases acid flow for optimum battery performance.

Moss Shield

Protects the separators from damage. The moss shield increases the battery life by protecting the top of the plates from shorting to the cell strap.

	SIND 06 610	SIND 06 920	SIND 06 1225	SIND 04 1685	SIND 04 2145	SIND 02 1990	SIND 02 2450
Capacity Amp-Hours (Ah)	6V	6V	6V	4V	4V	2V	2V
10-Hr Rate	421	627	835	1149	1474	1393	1712
20-Hr Rate	472	708	942	1293	1647	1547	1882
100-Hr Rate	610	920	1225	1685	2145	1990	2450
Weight lbs. (kg)	220 (100)	315 (143)	415 (188)	367 (167)	465 (211)	235 (107)	278 (125)

SOLAR PREMIUM LINE 1,900 CYCLES @ 50% DOD - 5 YEAR WARRANTY

Solar Premium batteries are optimized for Renewable Energy applications which operate under challenging conditions such as fluctuating or extreme temperatures, remote locations and the intermittent nature of solar and wind power generation.

Smart Carbon

A proprietary formula of carbon additives designed to enhance battery life and performance.

Alpha Plus® Paste with T2 Technology™

Optimizes porosity development in the active material resulting in sustained battery performance over a longer period of time.

DuraGrid™ Technology

Specifically designed for the longer life requirements of renewable energy applications.

Maxguard® XL Separator

30 percent thicker than our T2 flooded battery separator and provides even greater resistance to stratification which is typically a mode of failure in batteries used in renewable energy systems.

Moss Shield

Insulates and protects the top of the battery plates resulting in longer life.

	SPRE 12 225	SPRE 06 255	SPRE 06 415	SPRE 02 1255
Capacity Amp-Hours (Ah)	12V	6V	6V	2V
10-Hr Rate	179	211	346	1039
20-Hr Rate	204	229	377	1130
100-Hr Rate	225	255	415	1255
Weight lbs. (kg)	132 (60)	67 (30)	118 (54)	119 (54)