

## Automotive Battery Technology

### HYUNDAI

**ENERCELL** is a highly reliable automotive battery that satisfies car lovers all over the world under any circumstances. The internal rust-free calcium metal gives you the excellent heat resistance and strong immunity against any drastic temperamental changes. It is a maintenance free product that needs no refilling of the electrolytic solutions. Now, the new era of the automotive batteries begins with HYUNDAI ENERCELL.

#### Stable Engine Operation

We succeeded in promoting the charging/discharging efficiency and the product's lifespan by employing the lower resistant super-polymer separator and the built-in casting terminal called COS. Due to the expanded calcium metal, more solutions can be stored than ever. You can find stronger performance and steadier engine operation in "HYUNDAI ENERCELL".

#### Maintenance Free

HYUNDAI ENERCELL has a significantly longer lifespan because the calcium-based compound metal reduces the use of electrolytic solutions and minimizes self-discharge. It maintains a stable performance without ever refilling the solutions throughout its entire lifespan.

#### Built-in Indicator

The built-in indicator lets you know the remainder and condition of the electrolytic solution with an easy self-inspection.

#### Easy-Carry Handle

The built-in handle makes it easy to carry around during tuning or changing.

## Calcium Premium Battery

# HYUNDAI ENERCELL



### CONTACT SALES

**HYUNDAI**  
corporation

Tel : +82-2-390-1342,1353

E-mail : [zon2man@hyundaicorp.com](mailto:zon2man@hyundaicorp.com)  
[swgo@hyundaicorp.com](mailto:swgo@hyundaicorp.com)

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

Address : 25, Yulgok-ro 2-gil, Jongno-gu,  
Seoul 03143 Korea

**MADE IN KOREA**

● **Company Profile**

- **Corporate Name** : Hyundai Sungwoo Solite Co.,Ltd.
- **Core Business** : Battery (automobile, industrial, agricultural and electric vehicle) manufacture, sales(domestic, overseas)

● **History**

1979	FEB	Kyungwon Industry Co., Ltd, founded
1981	FEB	Appointed as an official supplier of Hyundai Motor Company
1983	OCT	KS approval of fixed lead battery
1987	FEB	Awarded for reaching \$ 10 million in export
1988	DEC	Completion of Osan Battery Plant
1992	AUG	Central Technology Research Center founded
1993	NOV	Cooperative development of electric automobiles (technology affiliation with OVONICS)
1994	NOV	Achieved ISO9002 certification
1994	DEC	Achieved UL certification of covered lead battery
1996	MAY	Achieved KS certification of covered 1 fixed lead battery
1996	DEC	Achieved ISO9001 certification by KFQ
1997	NOV	Completion of Gyeongju Battery plant
2000	OCT	Achieved QS9000 certification by KFQ
2000	OCT	QS9000 certification by KFQ
2003	NOV	Achieved ISO/TS16949 & ISO14001 certification by SGS
2007	JAN	Expansion of Gyeongju Battery Plant and Research Center
2009	JAN	Company name changed to Sungwoo Automotive Co., Ltd.
2012	APR	Production Capacity expansion completed at Gyeongju Battery Plant
2013	MAY	Company name changed to Hyundai Sungwoo Automotive Korea Co.,Ltd.

● **Contact**

- **Head Office & Plants**  
(Head Office) Sungwoo Auto Bldg., 609, Bongeunsa-ro, Gangnam-gu, Seoul 135-873, Korea / TEL 82-2-2189-0932 FAX 82-2-2189-0940  
(Gyeongju Plant) 1075-1, Yongmyeong-ri, Geoncheon-eup, Gyeongju-si, Gyeongbuk / Tel.82-54-750-7114 Fax.82-54-751-7232
- **Quality Certification** : ISO9001, UL(MH18360), QS9000, ISO/TS16949
- **Environmental Certification** : ISO14001
- **Sales Department** : 82-2-2189-0932
- **Quality Department** : 82-54-750-7150

● **Global Roadmap**

<b>1st STEP</b>	<b>Technological Innovation</b>	High-tech lead acid battery, Valve regulated gel type stationary battery for industry, Advanced automotive lead acid battery
<b>2nd STEP</b>	<b>Prior Occupation of Global Market</b>	Special (military) battery, Battery for energy storage
<b>3rd STEP</b>	<b>Global Maker</b>	Fuel Cell, Alternative energy

**The Best Batteries with Better Performance and a Longer Lifespan**

**CALCIUM MF BATTERY** 



1 **Heat-Sealed Cover & Integrated Handle**  
Gas & liquid separation by dual structure prevents leakage.



2 **Hydrometer (Indicator)**  
Battery conditions can be easily checked.



3 **Frame Arrester**  
Structure of separation of gas and liquid. Minimize acid-leakage. Ensure safety of explosion.



4 **Centered Cast on Plate Strap**  
Strong composition of positive and negative plates, separators and strap reduces lever action movement resulting from road shock.



5 **Low-Resistance Envelope Separators**  
Application of high density active material maximizes durability and life span. Excellent starting performance even in cold region.

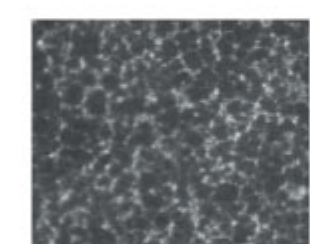


6 **Lead-Calcium Grids**  
Application of Pb-Ca-Sn alloy ensures complete maintenance free performance of minimum self-discharge and leakage.



7 **Container**  
Inside the case, plate up-holder density tightens the plates even at bad road condition.

8 **Terminal Structure**




fine grain :x100



fine grain :x400

►Terminal Shape



saw tooth



arrow head

Apply high strength forged bushing

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**ENERCELL**