

## Haze Gel Batteries

Gel batteries are what they say on the box. Rather than a lead acid battery the acid is mixed with silica additive, this means the acid hardens into a jelly like substance. The electrolyte is suspended but can freely flow between the plates. The gel makes for a more robust battery inside as it is vibration and shock resilient. The suspension of the electrolytes also means the battery will hold its charge for a longer period of time and it protects the plates from sulphating or corroding.

Haze is one of very few manufacturers worldwide that make a 'true' gel battery. As AGM and Gel batteries are made in a similar way at the beginning there are manufacturers which advertise a Gel product but often the battery is a standard AGM with a layer of Gel on the top, often known as a hybrid battery. These do not have the same properties as a Gel battery.

The technological advances do mean that Gel batteries are a higher cost compared to AGM, however as Easystart import almost as much Gel as AGM we stock the most competitive Gel batteries on the market.

It is incorrect to say that one technology is better than the other, the key is to use the battery that best suits your application and usage. Please use the guide to help you.

Haze has a proud reputation in the Gel battery market. Gel has many advantages, for example; a longer life span when maintained and charged correctly. Used to their optimum, Haze Gel batteries can cycle up to 650 times. Further advantages also include improved performance over long discharge, better tolerance to temperature variation and improved charge acceptance due to lower internal resistance.

- AGM is lower cost and suited to float applications.
- AGM is better performance for starting or high rate discharge options.
- Gel is proven as a longer life solution for deep discharge, daily cycling applications. (regular golfer)
- Gel batteries are suited to harsh operating environments, e.g. long days out in the sunshine.
- ALWAYS recharge your battery to reduce loss of capacity.

All Electric Vehicle Haze batteries need to be charged as soon as possible after every use.

Regarding depth of discharge, to get the best results out of battery it is best to reduce the depth of discharge, no less than 20%. This is why we suggest you always buy the higher amp battery.

The greater the discharge of the battery, the less cycles will be achieved. If you only discharge 20% of the total capacity, you will achieve around 2000 cycles. However if the battery is discharged to 80% of its total capacity, the cycle life will be reduced to around 500 cycles.

These figures are based on the battery operating at its optimum temperature and also the battery being fully charged after every use.

See tables below to show how temperature can effect capacity and how the depth of discharge (DOD) effects the cycle life of a battery.

