AGM (Absorbed Glass Mat) TECHNOLOGY

Q: What is AGM?

A: AGM stands for Absorbed Glass Mat.

Q: What is an Absorbed Glass Mat?

A: A highly absorbent, micro-porous mat made of special glass fibers. The specially designed mats are an essential component in the battery's electrolyte suspension system. All of the electrolyte is absorbed into this material enabling a spillproof design.

Q: Why buy an AGM battery from Koyama?

A: Koyama is a pioneer in developing the Form, Fit, and Function of AGM battery technology. The company's engineering design and manufacturing process meets major US and European OE automotive manufacturers' standards. From the company's use of the finest raw materials to precision-focused manufacturing (like the weighing and thickness analysis of every battery group), Koyama's AGM battery design and process has been tested and proven to best meet the Form, Fit, and Function criteria of the automotive industry.

Q: Are AGM batteries OK for any application?

A: AGM batteries will replace a flooded battery in any typical alternator voltage regulated system. These systems generally maintain a voltage at 13.8 to 14.4 volts (cars, trucks, commercial trucks, boats, etc.). In fact, the efficient recharging of the AGM battery design can cause less wear on the vehicle's alternator system over time.

Q: Can AGM batteries be recycled like conventional flooded batteries?

A: AGM and conventional flooded lead-acid batteries are one of the most recyclable products on the planet. Lead-acid batteries have a higher recycling rate than glass, aluminum, and newspaper. In fact, virtually 100% of every battery component can be recycled to make a brand new battery. Koyama operates one of the most modern and environmentally-safe facilities in the world. This enables our customers to assure their customers that they are recycling their batteries with someone they can trust.

Q: Is AGM really a premium battery product?

A: Yes. This advanced AGM technological design offers superior performance over conventional flooded batteries. All automotive batteries are expected to meet a certain level of performance standards for engine starting and to provide reserve power for the vehicle's electronics. AGM batteries, however, are expected to excel in certain key aspects of battery use such as:

CYCLING PERFORMANCE
SEVERE SERVICE DURABILITY
DEEP DISCHARGE RESILIENCY
VIBRATION RESISTANCE

As the electrical, high heat, severe service, and durability demands continue to intensify for today's vehicles, conventional flooded batteries may not deliver the dependable performance and service life needed under these conditions. This is not only the trend for cars and trucks, but now commercial trucks, marine vessels, and power sports vehicles are requiring a more evolved type of battery power.

1. CYCLING PERFORMANCE

Why do customers need better cycling performance from their batteries?

Today's vehicles, and those to come, are being built with more factory-installed electronics and more places to plug in portable devices. For example, cars and other passenger vehicles have to provide power for items like LCD viewers, GPS systems, stereos and speakers, powered windows or doors, cell and smart phone charging, and anything else that plugs in or turns on. Boats need power for accessories like live-wells, GPS systems, stereos, hazard lighting, fish finders, and any other item that plugs in or turns on. Cars that utilize stop/start functions, like Micro Hybrid Electric Vehicles, demand extra durability and a better charge acceptance from their battery. As more types of electric vehicles evolve, so will the need for a higher cycling tolerance from the battery.

How do AGM batteries help to deliver better cycling performance?

AGM battery technology withstands these additional accessory power and cycling demands while still having the power to start the vehicle. An AGM battery's enhanced durability and charge acceptance makes it an essential component for many stop/start and other electrical system technology. Its ability to have over twice the cycle life of a conventional flooded design gives it a clear advantage for its implementation into progressing electric vehicle technology.

2. SEVERE SERVICE DURABILITY

Why do customers need better severe service durability from their battery?

Severe service and higher temperature conditions continue to escalate because there is less open space under-the-hood with more demand on the battery. Also, more vehicles undergo stop-and-start driving conditions, further increasing the need for enhanced durability.

How do AGM batteries help deliver better severe service durability?

AGM battery technology can be utilized to help offset these increasing power and durability demands. The AGM battery's ability to withstand severe service and accessory power demands under elevated temperatures and stop-and-go conditions will better safeguard performance and extend battery life.

3. DEEP DISCHARGE RESILIENCY

Why do customers need a better deep discharge resiliency from their battery?

Vehicles that aren't used every day have a higher risk of not starting because of parasitic accessory power loads. Parasitic loads, or even leaving something on when the ignition is off, can completely drain the battery's power.

How do AGM batteries help deliver better deep discharge resiliency?

AGM battery technology delivers a higher deep discharge abuse tolerance. This helps protect

the battery longer from situations like infrequent use, parasitic power drains, or other deep power discharge (like leaving your vehicle's lights on when the ignition is off).

4. VIBRATION RESISTANCE

Why do customers need a battery that resists vibration damage?
Vibration resistance is extremely important to protecting the battery's life in almost any application that moves. Vibration or jolting movements can lead to electrical shorts or the loss of electrical storage capacity that can significantly decrease the battery's performance.