

Clarios low-voltage innovations drive automotive industry

- **12-volt batteries play critical role in reaching fuel-saving and sustainability goals**
- **Provide power for safety and sustainability features in hybrid and electric vehicles**
- **Clarios offers full battery portfolio for future market developments**

HANOVER (June 15, 2021) – The European Union’s 2050 climate neutrality mandate has put a spotlight on next-generation vehicles, including start-stop, hybrid and fully electric. This increased focus has also shone a light on battery systems and their critical role in supporting market forces that shape the industry.

With a complete portfolio of automotive battery products, Clarios is positioned to support the sustainability strategies for both its original equipment and aftermarket customers across all vehicle powertrains.

12-volt batteries are essential for electric vehicles

Electric vehicles and full hybrids rely on an advanced 12-volt battery to handle increased electrical loads and critical safety functions. 12-volt solutions support the electrical system when the main battery is switched off or failing.

If the high-voltage system fails, the battery can support critical safety systems, such as power steering, lights and power braking. Currently, about 90 million new cars per year are equipped with 12-volt solutions worldwide.

As drivers increasingly utilize emerging technologies to control automatic vehicle monitoring and operation systems, the need for advanced low-voltage power solutions will continue to grow.

“The trends in the electric and autonomous driving vehicle industry are a tailwind for our business,” said Olaf Dieleman, Director Engineering EMEA at Clarios. “Therefore, our batteries are designed to support electric vehicles, including driverless vehicles. They already have sufficient spare capacity to reliably supply future demands.”

AGM, EFB battery technology suitable for current and future car types

Absorbent glass mat (AGM) batteries as well as enhanced flooded batteries (EFB) are an essential part of the Clarios portfolio, since they remain in great demand in the field of combustion engines. Today, more than 90 percent of all new vehicles in Europe are equipped with fuel-saving start-stop technology. Eighty percent of new start-stop vehicles already have an AGM or EFB battery from Clarios.

These figures will no doubt increase as start-stop systems become the preferred technology for both the original equipment and aftermarket sectors.

As the driving force behind current environmental developments, start-stop technology is a key fuel-saving solution. Conventional batteries cannot provide the required energy during start-stop because their cycle life is reduced when charge levels fall below 80 percent.

With a cycle life up to three times longer than conventional batteries, Clarios AGM and EFB batteries are ideal for the high-energy demands of current and future vehicles.

A sustainable future starts with sustainable products

Industry developments and new applications have led to an increasing volume of batteries globally. Given this increased demand, Clarios drives industry leadership and best practices around the responsible usage, recycling and repurposing of battery materials.

Lead batteries are the most recycled consumer product, more than paper, cardboard or glass. Through a collaboration with customers and partners, Clarios has pioneered a closed-loop collection system for designing, building, recovering and recycling vehicle batteries to create a more efficient and sustainable approach to energy storage. Its batteries are designed with the ability to recover up to 99 percent of the materials used to make them, which enables Clarios to make new batteries from materials collected from old batteries.

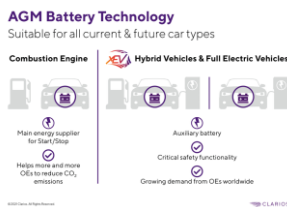
Captions



Clarios_AGM_Production.jpg

On the way to new vehicles of the future: AGM batteries on the production line at Clarios.

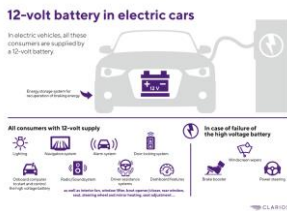
Photo: Clarios



Clarios_AGM_Technology.jpg

Vehicles with combustion engines require AGM batteries as their main electrical power source, while hybrid and full-electric vehicles require them as an auxiliary battery.

Graphic: Clarios



Clarios_Future_Vehicles.jpg

Even future vehicle technologies require additional energy from 12V products.

Graphic: Clarios

Press Release



About Clarios:

Clarios is a world leader in advanced energy storage solutions. We partner with our aftermarket and original equipment customers to meet increasing market demand for smarter applications, on a global scale. Our 16,000 employees develop, manufacture and distribute a portfolio of evolving battery technologies for virtually every type of vehicle. Our technologies deliver uniquely sustainable, next-generation performance, and bring reliability, safety and comfort to everyday lives. We add value at every link in the supply chain, ensuring that up to 99% of the materials in our batteries are recovered, recycled and reused, contributing to the progress of the communities we serve and the planet we all share. Clarios is a subsidiary of Brookfield Business Partners.