FMC’s Stabilized Lithium Metal Powder improves the energy density and performance of lithium-ion batteries

Chemistry is creating solutions that empower Americans to improve energy efficiency, making our nation’s energy supplies go further while lowering energy costs for business and families. Nearly every energy-saving technology depends on innovations in chemistry.

One such innovation is FMC’s Stabilized Lithium Metal Powder (SLMP®), which significantly extends lithium-ion battery output, life, and application flexibility. This technology is especially well-suited for new applications related to electric and hybrid vehicles as well as consumer electronic devices.

FMC pioneered the technique used to stabilize lithium metal powder and invented the technology to integrate this material into electrochemical devices. To create SLMP®, FMC micronized elemental lithium into stabilized particles of consistent size and composition.

Manufacturers can integrate SLMP® into a lithium-ion system, increasing conventional cell capacity by 10 to 40 percent without changing the voltage. For the consumer, this means that their electric vehicle will have longer driving range using the same-sized battery.

The products of chemistry save up to 11.1 percent of total U.S. energy consumption, according to an ACC study – enough to power, light, heat and cool up to 56 million homes or power 135 million vehicles annually. These chemistry products and technologies save Americans up to $85 billion every year.