

Moving e-mobility forward



Synthetic esters for e-mobility fluids Enabling efficient, safe and sustainable solutions

When **performance** matters - BASF Lubricant Components make the difference. As e-mobility is evolving, so are different technologies for electrified powertrains, requiring dedicated and advanced fluids to enable safe performance and energy efficiency while meeting the diverse and differentiated requirements of the OEMs. Modern e-fluids can be highly integrated and need to meet a wide range of performance requirements aimed at achieving high thermal stability, superior thermal management, and optimized electrical conductivity. SYNATIVE® Ester Base Stocks provide great flexibility to tailor your products to desired performance and specific needs.



SYNATIVE® Ester Base Stocks

Make the difference

Key performance benefits

- Low viscosities ranging from 1 to 5 cSt at 100°C
- Superior thermo-oxidative stability
- High heat capacity and thermal conductivity
- Low friction coefficients for high efficiency
- Low electrical conductivity and high break down voltage
- Strong contribution to sustainable development

Cost Savings



Resource Efficiency



Durability



Biodegradability



Health and Safety



Renewables








SYNATIVE® Ester Base Stocks

The selection of base oil technology is paramount to meeting and balancing requirements for e-mobility fluids. Synthetic esters provide great flexibility to tailor products to desired performance and specific needs for achieving optimal thermal management and electrical properties, while providing excellent lubricity for

e-driveline applications. With established expertise in lubricant solutions and deep understanding of chemistry, BASF is committed to support customers and partners in tackling the challenges of e-mobility.

Synthetic esters for e-driveline and battery cooling

Synthetic esters have unique performance characteristics enabling superior performance whenever high fire safety, efficient cooling and sustainability matter. BASF offers synthetic esters which can be used as single base oils or in combination with other base oil technologies to improve critical performance characteristics.

Safe operations	Efficient cooling	Optimal electrical properties	Excellent friction performance	Eco-friendliness
 <ul style="list-style-type: none"> High flash point High fire point Increased protection against fire Exceptional chemical stability 	 <ul style="list-style-type: none"> Ultra low viscosities Exceptional heat capacity Outstanding thermal conductivity 	 <ul style="list-style-type: none"> Low electrical conductivity High break-down voltage 	 <ul style="list-style-type: none"> Excellent lubrication critical for e-driveline Low traction coefficients for energy efficiency 	 <ul style="list-style-type: none"> Favorable EHS profile Readily biodegradable High renewable content Superior performance for efficiency and longevity BMBcert™ option to save fossil resources and CO₂ emissions

Get in contact with us



Let's work together.

Let us jointly create safe and effective e-mobility fluids for your individual needs.

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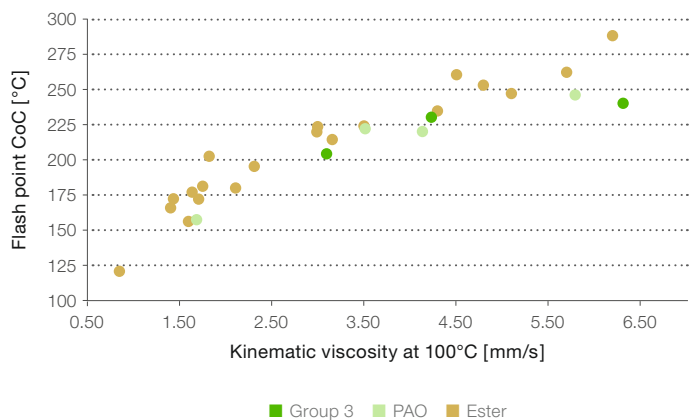
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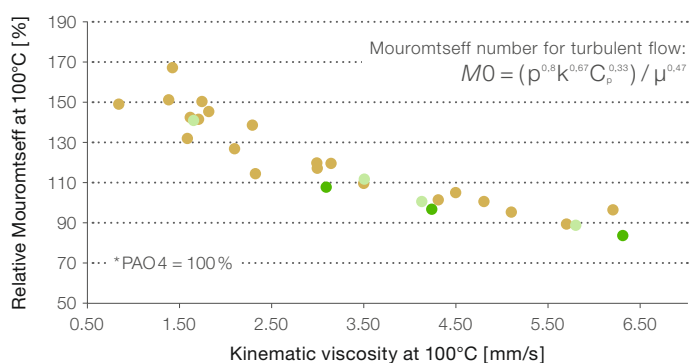
Lubricant Components

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Esters with high flash points for safe operations



Esters offer superior cooling performance



k = thermal conductivity C_p = heat capacity ρ = density μ = dynamic viscosity