



E-Mobility meets High-Performance Lubricants and Thermofluids

Lubricant solutions and related products for e-mobility concepts

MOVING YOUR WORLD

LUBRICANTS.
TECHNOLOGY.
PEOPLE.



E-MOBILITY – NEW CHALLENGES IN ALL AREAS

The latest e-mobility concepts present more than just vehicle manufacturers with major challenges.

The transformation in propulsion technology is also a huge task for suppliers, as the solutions they provide must meet completely new requirements – for example in the fields of cooling, material compatibility, or conductivity.

In addition to this, innovative ideas for extreme friction reduction are required in order to extend range and reduce CO₂ emissions.

We are heavily involved in these developments.

Flexibility is exactly our thing

There are many complex applications for specialized lubricants in electric and hybrid vehicles, where these lubricants reduce friction and secure the requisite service life. Thermofluids are also playing an increasingly important role in electrified vehicles, as established coolants offer only limited suitability for use in drive and battery systems, primarily due to their electrical conductivity. Protecting the sensitive components from environmental influences represents another challenge that we are happy to accept.

We find the right solutions for any vehicle both reliably and flexibly – no matter whether for lubrication, cooling, or protection.



Lubricants

Fluids

E-axles
Hybrid transmissions
Shock absorbers

Greases

Electric motors
Electric drive shafts
Wheel-hub drives
Electrical contacts E
lectric brake booster
Elec. steering systems

Thermofluids

E-axles
Battery
Fuel cell
Power electronics

Coatings

Corrosion protection
Battery casings Other components

Friction reduction
Sealings
Plugs

Cleaners, coatings

Battery components
Propulsion components
Electronic components

Fluids

Forming
Drawing
Punching
Machining



■ Solutions for operation ■ Solutions for production

Always one step ahead!

Our many years of experience, intensive advance development, as well as major R&D laboratory and test bay capacities enable us to develop and test suitable solutions for new challenges together with our customers. Extensive expertise, speed, flexibility, and when necessary unconventional approaches secure reliable results here.

We would be happy to work with you in determining the right media for your tasks from the large number of potential solutions.



Achieving more together

Participating in joint research projects allows us to constantly find new ways of making drive systems even more efficient together with customers and value-adding partners. As a result, we can increase the achievable range in battery-powered electrical vehicles and minimize CO₂ emissions in hybrids, while helping to reduce costs for both.

One such joint project in which FUCHS is collaborating with other OEMs and suppliers is Speed4E. The objective here is to achieve both lubrication and cooling using just one fluid in a highly integrated drive system that reaches speeds of up to 50,000 rpm.

Speed4E



Simulation of the fluid flow in the high-speed transmission
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Note

The information contained in this product information is based on the experience and know-how of FUCHS LUBRICANTS GERMANY GmbH in the development and manufacturing of lubricants and represents the current state-of-the-art. The performance of our products can be influenced by a series of factors, especially the specific use, the method of application, the operational environment, component pre-treatment, possible external contamination, etc. For this reason, universally-valid statements about the function of our products are not possible. Our products must not be used in aircrafts/spacecrafts or their components, unless such products are removed before the components are assembled into the aircraft/spacecraft. The information given in this product information represents general, non-binding guidelines. No warranty expressed or implied is given concerning the properties of the product or its suitability for any given application.

We therefore recommend that you consult a FUCHS LUBRICANTS GERMANY GmbH application engineer to discuss application conditions and the performance criteria of the products before the product is used. It is the responsibility of the user to test the functional suitability of the product and to use it with the corresponding care.

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