

2480.00

Ektron

Fully synthetic, high-performance lubricant specific for eAxles of hybrid and full electric vehicles.

Suitable for both single and multispeed transmissions and also in case of direct cooling of electric engine (wet eMotor).

PAKELO EKTRON is a fully synthetic, high-performance lubricant, specifically developed for eAxles of latest generation hybrid (HEV, PHEV, REEV) and full electric (BEV, FCEV) vehicles.

An eAxle is the combination of Electric Motor, Power Electronics, Reduction Unit and Differential in one single compact system to obtain suitable torque and power output to vehicle traction wheels.

Depending on OEM hardware, eAxle fluids lubricate single or multispeed reduction units/differentials and can act as a cooling agent on eMotors and power electronics in case of direct cooling design. This means the lubricant can be in direct contact with electric devices and needs to show proper electrical characteristics while maintaining high EP, anti-wear and friction properties of transmission fluids.

Thus, eAxle fluids represent a new challenge for lubricant manufacturers and require a completely new and dedicated fluid design to face compatibility with new materials and to better manage electrical properties and cooling performance.

PAKELO EKTRON provides the following main properties:

- superior EP and anti-wear properties that allow to enhance bearings and gears protection;
- very high shear stability even under high mechanical stresses: this keeps the viscosity properties of the lubricant very close to the starting conditions;
- low viscosity fluid providing fuel savings during functioning;
- excellent fluency at low temperatures for easy and safe start-ups;
- correct friction coefficient on every kind of synchronizers and plate materials; this avoids vibration phenomena and allows correct gear shifting in multispeed transmissions;
- very high thermal-oxidative resistance to minimize potential viscosity increase phenomenon and to reduce sludge and deposits formation;
- great anti-rust and antifoam characteristics;
- outstanding protection from copper corrosion both in liquid and vapour phase to avoid any issue when the product is in direct contact with electric devices;
- better electrical properties (conductivity/breakdown voltage) both on new and aged fluid if compared to standard ATF and transmission lubricants;
- excellent cooling performance with adequate Specific Heat and Thermal Conductivity;
- absolute compatibility with elastomers and plastics used in new generation eAxles designs.

2480.00

Ektron

Application fields

PAKELO EKTRON is a fully synthetic lubricant, specifically developed for eAxes of latest generation hybrid and full electric vehicles. The product is suitable for both single and multispeed transmissions. Furthermore, it can be used in wet eMotors where there is a direct cooling of electric engine.

The product is a multipurpose "service fill" eAxle fluid for different eAxle designs. Please take into consideration oil drain intervals usually specified by OEMs to guarantee transmission reliability.

Warning: this product is not suitable in those automatic transmissions, also of Hybrid Vehicles, requiring ATF fluids (lubricants for automatic transmissions traditionally designed with torque converter and planetary gears), CVT (Continuously Variable Transmission) fluids or DCT (Dual Clutch Transmission) fluids.

Pakelo Recommendations

Audi eTron / eTron Sportback, **BAIC** EU-Series, **BYD** Qin Pro EV, **ChangAn**, **Chevrolet** Bolt / Bolt EV / Spark / Volt, **Ford** E-Transit / F-150 Lightning / Focus Electric / Mustang Mach E, **GAC** Aion S/LX/V, **Geely**, **GMC** Hummer EV, **GWM** (with BorgWarner dry eAxes), **Honda** Clarity FCEV / e / e-Advance / Fit EV, **Hyundai** Ioniq, **Kia** e-Niro, **Lexus** RX / UX300e, **Lucid** Air, **Mazda** MX-30, **MB** EQA / EQB / EQC / EQE / EQS / EQV, E-Sprinter, **MG** MG5 EV, **Nissan** Leaf / e-NV200, **Opel** Ampera E, **Polestar** Model 2, **Porsche** Taycan 4S, **Renault** Fluence Z.E. / Kangoo Z.E. / Twizy / Zoe Z.E., **SAIC** MG ZS EV, **Scion** iQ EV, **Tesla** Model 3 / Model 3 Dual Motor / Model S / Model X / Model Y / Model X90D, **Toyota** Mirai, **Volkswagen** e-Golf, **Volvo** XC40 (BEV only, SUV), **XiaoPeng** G3.

Chemical-Physical Characteristics

Ektron	Method analysis	Unit measure	Value
Density at 15°C	ASTM D1298	kg/l	0,840
Kinematic Viscosity at 40°C	ASTM D445	cSt	22,1
Kinematic Viscosity at 100°C	ASTM D445	cSt	5,0
Viscosity Index	ASTM D2270	-	161
Brookfield Viscosity at -40°C	ASTM D2983	cP	4.000
Foaming Test - Sequence I, 24°C	ASTM D892	ml / ml	20 / 0
Foaming Test - Sequence II, 94°C	ASTM D892	ml / ml	20 / 0
Foaming Test - Sequence III, 24°C after 94°C	ASTM D892	ml / ml	0 / 0
KRL Shear Stability (Stage C - 20 Hours) at 100°C	CEC L45T93	%(cSt/cSt)	0,9
Flash Point (C.O.C.)	ASTM D92	°C	200
Pour Point	ASTM D97	°C	< -50
Test FZG (A/8,3/90) Failure Load Stage	ASTM D2882	stage	> 12
Evaporability test (200°C/1h)	Internal	%(w/w)	4,8

The data just above refer to average values and must not be understood as guaranteed characteristics.

This Technical Data Sheet has been carefully checked to guarantee complete and precise information. However, we do not take any responsibility in case of damages caused by any mistakes or omissions. Due to continual product research and development, the information contained herein is subject to change without notification.