

# Advanced EHC™ Group II/II+ base stocks offer excellent resistance to oxidation\*



Base oil made of ExxonMobil EHC™ Group II/II+ base stocks blends showed comparable oxidative stability to base oils made of EHC and Group III blends or of a competitive Group II/III blend in the CEC L-109 test, an industry standard bio-diesel oxidation bench test that probes the effect that fuel with biodiesel content can have on a lubricant.

## What this means for you

Owing to the demonstrated stability of the EHC molecules, you can be confident that lubricants formulated with only EHC base stocks are as robust as lubricants formulated with a Group II/ Group III blend, and you can take full advantage of the superior viscosity properties design of ExxonMobil EHC base stocks to formulate your semi-synthetic 10W-xx lubricants with no (or limited) content of Group III base stocks.

## The comparative method

The inhibited iso-viscous base oils were prepared using:

- EHC 50 and EHC 120 base stocks, and competitive base stocks
- A base stocks ratio based on a commercial SAE 10W40 ACEA E6 lubricant formulation
- A phenolic/aminic antioxidant mix

For more information, contact your Sales Representative, or fill out a "contact an expert" form at [exxonmobil.com/basestocks](http://exxonmobil.com/basestocks)

### Formulating with EHC base stocks enables:



Controlled viscosity increase with temperature



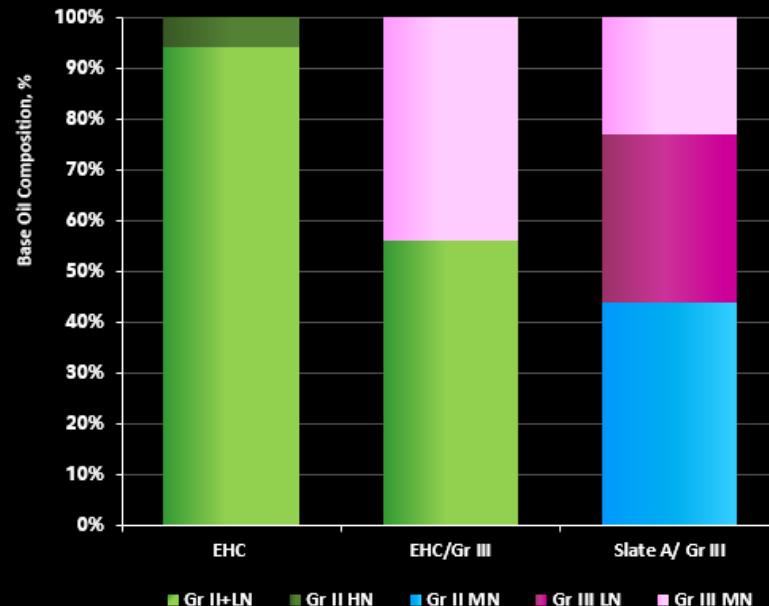
Exceptional oxidation stability



Outstanding low temperature performance

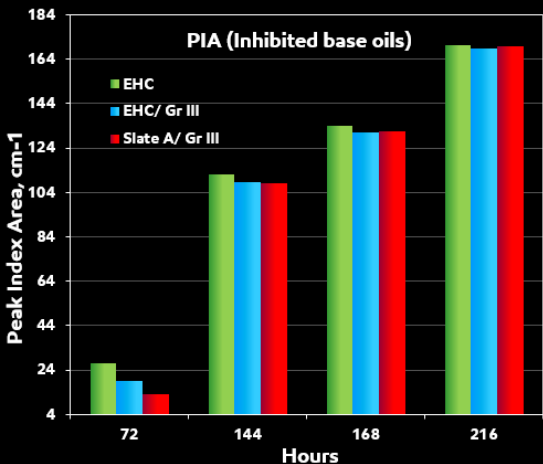
ExxonMobil EHC can reduce or eliminate the need for Group III base stocks in some finished lubricant formulations, with comparable oxidative stability and high/low temperature performance

### Base oil composition for commercial SAE 10W-40 ACEA E6 formulation



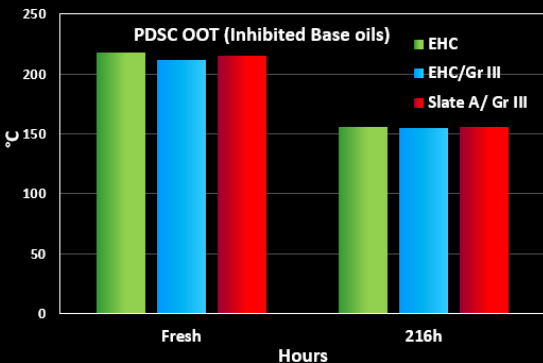
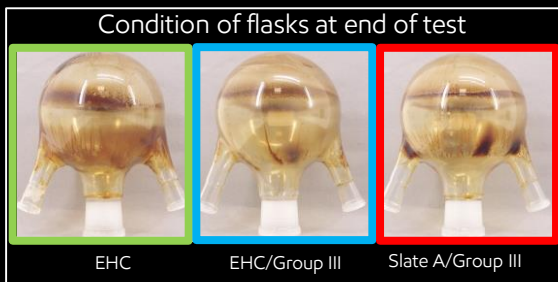
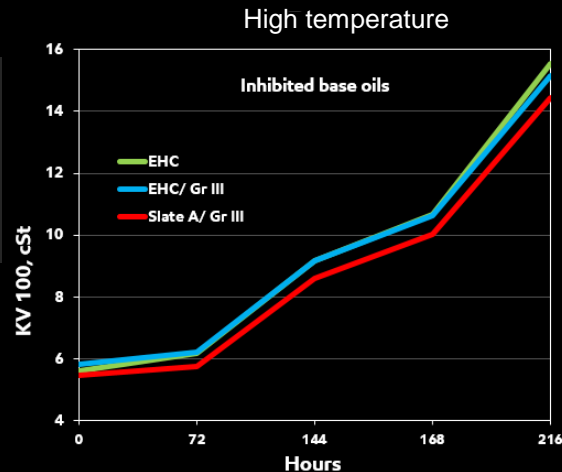
\*EM comparative assessment of base stocks oxidation stability using the same phenolic/aminic antioxidant.

# ExxonMobil EHC™ Group II/II+ base oils show similar oxidation resistance performance to EHC/Group III and Slate A/Group III candidates\*



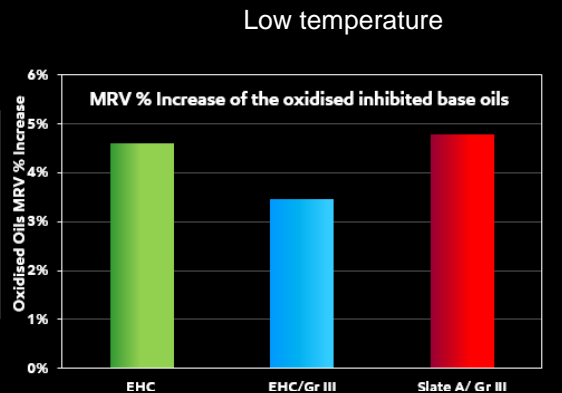
Over time, ExxonMobil EHC™ Group II/II+ base oils produce organic acids in comparable amounts to the EHC/Group III and Slate A/Group III candidates

Close to identical viscosity trends for the three oxidized base oil blends



EHC and Slate A/Group III have the same degree of oxidative stability as seen through their Oxidation Onset Temperature (OOT) measured using Pressurized Differential Scanning Calorimetry (PDSC)

EHC/Group III retains its low temperature performance better  
EHC and Slate A/Group III are identical



\*Base oil ratios based on an SAE 10W40 type lubricant blended at equivalent KV at 100°C and CCS at -25°C, and evaluated in the CEC L-109 bio-diesel oxidation bench test using an antioxidant. Lubricant blender is responsible for making their own assessment and obtaining appropriate approvals and licensing of all formulations.