

Performance

ETRO's superior quality is highlighted by its high VI and low Noack properties.

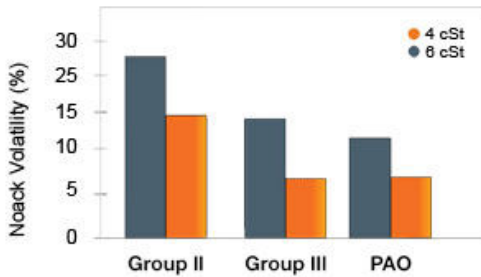
a. **High Viscosity Index (VI)**

The stability of Group III base oil is predicted by their VI. A high VI is an indication of a highly stable paraffinic and saturated structures fraction. In the hydrotreating process aromatic components are converted into paraffinic components; this results in a very high viscosity index as well as excellent thermal and oxidative stability by cracking condensed aromatics and impurities.

b. **Low Volatility (Noack)**

Lubricant volatility impacts oil consumption and exhaust emission. Given that Group III base oil is characterised by a less volatile component composition, oil consumption is lower when formulating lubricant compared to that of Group II grades. Indeed, as indicated in the chart below, performance of ETRO in this respect is comparable to the significantly more expensive Polyalphaolefins (PAO).

Group III Performance vs PAO



ETRO base oils have lower noack volatility for formulating lower viscosity grade API SM to meet low oil consumption requirements with improved fuel economy and cost savings for formulation.

North American 0W-30 formulation with ETRO does not require any PAO

