PETRONAS BASEOIL

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Infineum

We deliver additives that provide superior performance to the lubricants and fuels of our customers. We have demonstrated excellence in the formulation, manufacture and marketing of petroleum additives for: crankcase (automotive and heavy duty diesel oils, viscosity modifiers, pourpoint depressants); fuels and refineries (cold flow improvers, premium diesel additives, heating oil additives, biodiesel additives); and specialty applications (transmission fluids, two- and four-stroke engines, marine and natural gas engines).

Our promise to deliver performance you can rely on is built on three core attributes: technology excellence—Infineum's unique formulation and superior technology supported by a complete product portfolio; reliability—supply and quality reliability through our network of production facilities worldwide; and collaboration—positive work relationship with customers to ensure mutual success.

Although base oil, which finds an application principally within the lubricants business, is a commodity, it is technically challenging to produce and must meet very precise requirements. "My task was to head up and create a new company in an area where there was no previous expertise at all," Rousmaniere explains.

His first challenge was to get the recipe right. Prior to moving into production in 2008, two years were spent on product development. "At the outset, no one in PETRONAS was aware of the requirements of different market segments and customers within the international marketplace," he continues. "We also made an important discovery when we realised that with the nature of the technology at our disposal, we could create a superior group III product from Malaysian crude at the same cost required to develop an inferior grade."

Strategically, it made clear sense to focus on the premium end of the demand spectrum. Stricter environmental legislation demands that automotive engine manufacturers construct more fuel efficient and environmentally friendly engines. These modern engines need lubricants that have higher durability and enhanced cleaning

properties. This calls for lubricants manufacturers to innovate better-designed lubricants that cater to increasingly complex and demanding original equipment manufacturers' (OEM) specifications.

When operating today's vehicles at high speed, engines and lubricants inevitably heat up. Consequently, lubricants become volatile. Base oils are important to the make-up of lubricants as they affect fuel consumption and exhaust emissions. Because the chemical composition of group III base oils contains less volatile components by nature, fuel consumption is lower when formulating lubricants with group III base oils compared to group II grades. Additionally, high quality base oils can meet the lubricant manufacturers' needs by requiring less costly additives to create new lubricant formulations.

The above considerations led to the creation of ETRO, a group III base oil at the top end of the market. Known to boost engine performance, it is the basis of high performance engine oil as well as the base for compressor and hydraulic oil formulations. It has also been proven to produce less harmful emissions and less waste. Manufactured from a proprietary wax isomerisation process and hydrofinished to a colourless liquid, ETRO exhibits superior low temperature performances and an excellent viscosity-volatility relationship—a prerequisite for excellent lubricant formulation. Current production of ETRO stands at 6,500 barrels per day.

"Branding only takes place in the top echelon of the base oil market where producers tend to be very proud of their products and want a clear identity that sets them apart," Rousmaniere explains. "We produce three distinct product streams all sold under the ETRO brand name and most of our work over the last two years has been dedicated to seeing ETRO become embedded as the product of choice with the world's OEMs."

Although there are 150 base oil refineries in the world, none were previously located in Malaysia and any company requiring base oil had to source it elsewhere. The first requirement was to meet domestic demand, including that of PETRONAS' own lubricants business which is being managed by PETRONAS Lubricants International Sdn Bhd (PLI). However, as Rousmaniere points out, the Malaysian market is relatively small; and from the outset it was imperative to develop a product that would appeal to a wider global customer base.

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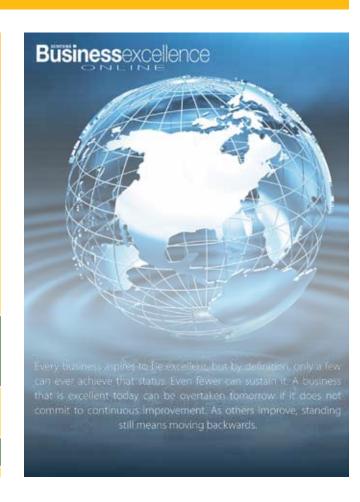
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Only five or six other refineries in the world produce group III base oil, and Rousmaniere believes it was an inspired choice. "As well as the opportunity to add maximum value, demand is very strong and is growing all the time," he states.

Rousmaniere sees the international footprint of sister companies within PETRONAS as a very important differentiator. "Our competitors in Korea, for example, are very large within the immediate region, but not present in Europe, India, Brazil or South Africa, whereas PLI operates in all of these places and is expanding its reach almost by the day. We are the only company within our competitive environment that has access to a global distribution network and also benefits from a major internal customer."

Rousmaniere feels that his greatest achievement to date has been to create a highly skilled Malaysia team of experts who wholly embrace and understand the complexities of the international market environment. Sales and delivery of ETRO to worldwide destinations are streamlined by direct distribution through the end-to-end supply chain network within the company. In addition, PETRONAS Marketing Netherlands B.V. was established to cater to the European market.

As a fully integrated company, PETRONAS has all the pieces in place to market its base oils successfully—from the reliability of supply from its upstream operations to its word-class refining complex, to a global marketing and distribution network supported by logistics and technology capability. As global demand for better, cleaner lubricants grows, engine and equipment manufacturers are increasingly convinced of the technical, economical and logistical advantages that PETRONAS base oils can provide for their businesses. ETRO is well on its way to becoming the preferred high quality base oil. www.petronas.com.my •

