

Key questions to ask your base stock supplier

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With the intricacy that goes into producing engineered fluids like base stocks, it is more important than ever for lubricant manufacturers to choose the right base stock supplier for their formulation needs, not only to protect their brands, but to maximize the value from their base stocks supplier.

Most conversations today between manufacturers and suppliers revolve around price, which is often seen as the only value driver when it comes to choosing the right base stock producer. However, the value of base stocks is defined by much more than cost. If formulators want a high-quality finished product that will continue to help drive their business forward, they should address several key questions beyond price with base stock manufacturers.

1. Beyond your product specifications, how do you guarantee that your base stock will always perform in my formulations?

With base stocks making up anywhere from 75% to 99% of a finished lubricant, having it meet all relevant product specifications and application performance requirements should be a fundamental for all base stock producers. However, that does not mean all base stocks are the same. A premium base stock supplier will have a comprehensive quality assurance program in place with testing parameters that go beyond what is required – helping to ensure the integrity of their commercial production to better protect customers' lubricants brands.

Base stock production is an intricate process with many variables that can alter the properties of the base stock if not actively controlled. Base stock properties like viscosity, pour point, cold cranking viscosity, NOACK volatility, oxidative stability and more must meet specific compositional thresholds in order to perform well in their intended applications.

Base stock producers need extensive internal quality control systems with additional proprietary specifications and processes to ensure the consistency of their commercial production. Producers should also have external industry accreditation such as an ISO 9001 certification or equivalent and be a signatory of the ATIEL "Letter of Conformance." Find a supplier who has a full understanding of application needs and goes beyond just meeting table stakes specifications.

2. How can your base stock design help improve efficiency for my business?

Lubricant marketers should always aim to minimize operational complexity – and potentially cost – by picking base stock slates that are optimally designed for its intended applications and are linked to a global slate.

It's important that base stock producers deeply understand the intended lubricant application in order to design base stocks with properties that enable customers to optimize formulations without sacrificing performance and quality. As part of this process, producers should work with additive companies to ensure that lubricant formulations are commercially available and that they capture the optimal design of the base stocks.

Choosing base stock suppliers with global slates can also help improve efficiencies as it provides lubricant manufacturers with the ability to interchange between different base stock grades in formulations without impacting performance or the need for costly re-qualification in each region. This can also potentially optimize tank storage by reducing the number of holding tanks required.

Choosing the right base stock supplier goes back to understanding and meeting the needs of the entire finished product line. Lubricant manufacturers should look for a supplier that can provide optimally designed base stocks for their needs, so they can reduce the number of suppliers for their lubricant blending plants and save on total formulation costs (including base stock, additive and co-base stock prices, across a full range of applications).

3. What is the breadth of your base stock supply network and delivery capabilities?

Beyond having a consistent, high-quality base stocks supply, there are other important elements related to business continuity planning (BCP), such as working with a producer that has a reliable supply offer and a robust global footprint.

Base stock producers with global networks of terminals, supply hubs, tanks and distributors that are geographically positioned near critical vessel and truck routes can enable greater supply

options and storage and product availability, as well as potentially shorter lead and delivery times.

Suppliers should also have base stocks readily available in volumes large enough to provide reliable and consistent supply into the blend plant. The base stock should be part of a global base stock slate to enable business continuity in case of any local supply disruptions.

4. How can you support me if an unexpected supply issue occurs?

As with any industry, issues can occasionally arise despite everyone's best efforts. Look for an agile base stock supplier that is flexible to accommodate a lubricant manufacturer's unexpected supply changes and needs. The base stock supplier should be able to assist with scenario planning and modeling, essentially providing specific guidance on how they would deliver additional sources and supply in light of an unplanned disruption. This way they can manage the right level of inventory for extended transit time.

For example, if there was a supply issue in one region, what is the plan for supplying volume from another region? In some cases, base stock suppliers hold additional product to support availability of supply.

Base stock suppliers with a global footprint and a strategic network of refineries can provide seamless business continuity for lubricant manufacturers by sourcing product from different locations within the same slate, as consistent, global product slates enable more supply options.

5. How do you envision your products evolving long-term?

The lubricants industry will continue to evolve as consumer preferences shift, and as increasingly advanced specifications and regulations are introduced into the market.

Lubricant manufacturers should look for a base stock supplier with an established presence that will be there to weather any changes that come. Working with an established base stock supplier means lubricant manufacturers will benefit from the supplier's extensive experience and knowledge in successfully adapting in the ever-evolving lubricants industry.

As the landscape shifts, a base stock supplier's extensive industry knowledge and longstanding experience, as well as their production investments, will be critical to maintaining a finished lubricant blender's success. A base stock supplier must be committed to long-term growth and innovation that supports a lubricant manufacturer's business to continue to run seamlessly well into the future. The best partners to align with are those that put effort into addressing the needs of today as well as tomorrow.

6. How can you support me in formulating my products so I can extract the most value?

Beyond a base stocks supplier's ability to support product integrity and supply reliability, it is important to look at the technical support they can provide as well. Suppliers should be committed to helping lubricant manufacturers achieve business success by listening closely to their challenges and strengths, and responding with innovative ideas.

Lubricant manufacturers today face tighter production deadlines as well as changing OEM and industry requirements. To help solve these challenges, lubricant manufacturers should consider suppliers who have tools readily available that can help optimize formulations. For example, the ExxonMobil Basestock digital blend optimization book (also known as BOB) can help manufacturers boost lubricant formulation flexibility, simplify operational logistics, grab new market opportunities, improve operational efficiency and increase speed to market.

Beyond digital tools, look for a base stock supplier with a team of experts readily available to help address needs. Ask if the base stock supplier has a field team who can understand the lubricant manufacturer's operation and provide guidance on the optimal base stock for a specific application. A customer-focused base stocks provider continues to offer service well after delivery; they will provide the technical support and help them choose the right formulation for their lubricant.

Why it matters

Choosing the right base stock supplier with excellent quality product and service can have big benefits for lubricant manufacturers today. By viewing base stocks as an engineered fluid that serves as a key product differentiator, and thinking beyond price, lubricant manufacturers will realize business benefits in the long term.

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