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TRADE ISSUES, TARIFFS CREATE CONCERNS FOR MANUFACTURERS

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Embracing the Rainbow

Grease colors can dramatically affect safety, efficiency and brand awareness By Robert Bittner



John Sander, vice president of research and development for Lubrication Engineers, attended an industry conference where the keynote speaker, from the Virginia Department of Transportation (VDOT), was praising the benefits of a particular grease.

“He was in charge of the lubrication programs for hundreds of vehicles and machinery used for the maintenance of their roads,” Sander recalled. “He opened his speech saying, ‘Thank you for the red grease. That red grease always works!’”

Sander couldn’t help wondering *whose* red grease. “Knowing that our No. 1 selling grease is red, I wondered if we were selling to VDOT. We were, but only in a small, isolated part of Virginia. So, it might have been our grease.

But it could have been somebody else’s. Because many lubricant manufacturers produce and sell red greases. This gentleman told the group that ‘red’ grease was the best grease. Frankly, the color didn’t have anything to do with the performance.”

Researchers agree: Grease colorants do not improve grease performance. In fact, customer expectations aside, a grease’s color generally has no relationship to its specific application. Nonetheless, customers are likely to view color as an important ingredient in grease formulations.

Although there is no technical justification for most grease colorants — and not every manufacturer even chooses to add color — there are reasons many lube companies develop and add a range of colorants or dyes to their greases.



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THE IMPORTANT ROLE OF COLOR

As a result of culture and conditioning, colors mean something to most people. Imagine a child's birthday party where the cake is covered entirely in black icing. Imagine trying to navigate your way to work if the stop, yield and go lights on every traffic signal were all the same shade of brown. Colors entertain and stimulate.

Colors also have the power to convey vital information quickly. For example, we tend to associate the color red with “stop,” “warning,” and heat or fire. White might connote cleanliness, safety, health, etc. These natural connections can, for better or worse, affect customers' ability to appreciate a grease and understand its intended use: “Red is for high-temperature applications; blue should only be used in marine environments,” they may assume.

Grease color plays a more practical role on the shop floor, where safety and efficiency must work hand-in-hand. A yellow-tagged grease point naturally calls for yellow grease, reducing the likelihood of the costly misapplication of the wrong lubricant.

Safety, efficiency and brand awareness/marketing can all benefit from grease color. But grease needs some help getting to that point. It doesn't usually start out blessed with nice colors.

Sander points out that many greases require a high-temperature cooking process to produce the thickener, a process that often results in natural colors that can vary from “almost a cloudy, ‘Vaseline-like’ clear to dark brown, with a shade of beige being very common.” In other words, the natural colors of most greases are visually unappealing

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Paul Grimes, vice president of marketing, Lubrication Engineers

and, well, boring. They also can look very similar. In a plant environment, where a variety of machinery requires a range of specific greases, distinctly different colors may help ensure that the end user can easily locate and apply the correct grease to the correct point.

That’s where colorants — the dyes and additives that can dramatically alter the final product color — enter the picture.

GETTING COLORFUL

Afton Chemical Corp. supplies grease manufacturers/marketers with additive packages and components that allow their finished grease formulations to meet customers’ performance standards. For example, “the ‘natural’ color for most lithium greases is amber,” noted Joe Kaperick, Afton Chemical’s senior grease advisor and president of the National Lubricating Grease Institute (NLGI). “But that can be impacted by the base oil used to make it, as well as other [factors]. Some additives, such as components containing sulfur, can have a very dark color, which may affect the final color of the grease it goes into.

“We do have to think about the effect our additive color will have on the ability of the grease manufacturer to obtain the color they desire in their finished products.”

Those color choices are key in helping to establish safe work procedures for end users. An orange grease that is to be applied to Machine A needs to be easily distinguished from an amber grease required for Machine B. “We want factories to identify each grease point with a specific color and tag so employees won’t apply a wrong grease or an incompatible grease,” said Paul Grimes, vice president of marketing for Lubrication Engineers. “People are now starting to adopt these lubrication ID best practices.”

Such internal practices are critical because, apart from food-grade grease, which is typically white, there is no definitive color standard that applies throughout the industry. There might be general application similarities across the industry for certain colors due to their common ingredients, but there

is no guarantee that one manufacturer’s blue grease can be swapped for another manufacturer’s blue grease.

“I do see greases being marketed with different colors for different applications,” said Kaperick. “Red is often viewed as ‘good’ for high-temperature applications, while blue or green might be better for marine usage. Some greases may be a specific color as part of the manufacturer’s branding; they may use the color as part of their tagline — for instance, to appeal to a customer’s preference for a certain color.”

Many customers may assume that a grease is inherently blue because it is a marine grease — rather than understanding that the manufacturer chose to color it blue so it would look appropriate for marine applications. Because of this, if you choose to color your marine grease pink, it might be difficult to bring customers on board.

In addition to affecting customers’ perception of a grease and its intended use, color contributes significantly to building brand awareness and customer loyalty for a manufacturer’s range of products.

“We’ve got around 10 to 15 color variations in our grease line,” Grimes said. “When we are developing new grease colors, we want those colors to fit into an existing family of products, so they’re recognizable — product to product — as being part of the same family.” That idea has affected the company’s packaging as well. “The packaging is almost consumer-like,” he said, “but we did that because we thought it would help people identify with our colors and color schemes, which can make identifying a grease more efficient in the factories.”

CHALLENGES AND MISCONCEPTIONS

Every single ingredient in a high-performance grease brings challenges as well as benefits. Color is no different.

Industry research and development scientist Dr. Anoop Kumar has written that the overuse of colorants may impact grease properties. For example, titanium dioxide and zinc dioxide, used to color grease white, “may increase wear and oil bleeding when used in higher concentrations,” specifically concentrations of 0.1 percent or more. Similarly, higher concentrations of other colorants may weaken a grease’s ability to prevent copper corrosion.

As customers get used to seeing certain colors in a company’s greases, it is common for them to draw strong connections between those grease colors and grease quality.

“We seldom get complaints about new product in the container,” said Sander, “but when we have, they’ve typically been, ‘It doesn’t look right.’ If the color is not right, customers may complain,” even though the quality is not affected in any way.

According to Kaperick, that situation is not uncommon. “Grease manufacturers tell me that up to 50 percent of the complaints they get about grease products are that they

aren't the 'right' color. If the new shipment of grease isn't the same shade of red as the last one, they assume there must be something wrong with the grease. This means manufacturers need to be careful in their process to use the right dyes, in the right amounts, to avoid issues like that."

A company's color range can help build customer familiarity and loyalty. At the same time, that means "color may be an issue if trying to switch a customer from another brand," Kaperick continued. Winning new customers to your range of colored greases might require educating potential customers on the differences.

"If the one they're using is red," he said, "switching to a blue grease may confuse the lube guys who'll be using it. You also need to convince them that the blue grease is as good or better in the critical performance areas — for example, protecting against wear, corrosion, oxidation — even though it's not the same color."

Finally, it might be challenging to sell a grease that differs too much in color from what a customer expects.

"In heavy-duty applications, such as mining, it's common for the original equipment manufacturer to specify that the

grease should contain molybdenum disulfide, often at 3 percent or 5 percent by weight," Kaperick said. "This component is a solid lubricant that can provide good protection under extreme pressure conditions, but it is also black and will make the grease it goes into black. I think this has led the industry to believe that, in general, heavy-duty greases need to be black, even though it might be possible to provide the same level of protection with a different-colored grease."

HIDDEN GOLD (AND GREEN AND ...)

"People know that the grease in the machine does its job," Grimes pointed out, "but, beyond that, it's sometimes forgotten because it's hidden. The only thing people do get used to is what it looks like before it gets in the machine."

"When I came to Lubrication Engineers, I wanted to make grease more exciting and fun. So, we've spent a lot of time seeing what we could do to enhance the elements of color and texture. There's a lot more going on with grease than just making it and putting it in a machine." 💧

Bittner is a Michigan-based freelance journalist and a frequent Compounding contributor.



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