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INSIDE ...

- K-beauty
- Top trends in cosmetics
- Digitizing pharma
- Achieving uniform dosing
- Biologicals in agriculture
- Bio-based alternatives
- Molecular tagging
- Women in Science

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Adding value with sustainable solutions



Torsten Schmidt,
Vice President, Marketing,
Chemical Segment at
Kraton Corporation

We speak to Torsten Schmidt, Vice President, Marketing, Chemical Segment at Kraton Corporation, about the expanding market for sustainable solutions to the high-growth coatings industry.

Kraton Corporation presented its portfolio at the European Coatings Show (ECS) 2019 earlier this year. The company is placing a strong focus on the increasing demand for reliable, visually-appealing products that are both functional and environmentally-friendly. We spoke to Torsten Schmidt, Vice President, Marketing, Chemical Segment, about the expanding market for sustainable solutions in the coatings industry.

Q: Let's start with why demand for sustainable solutions is growing. What's 'wrong' with conventional coatings?

Conventional coatings are typically made from non-renewable materials. This isn't sustainable because eventually sources of these materials will run out, and both the creation and disposal of products using these materials can harm the environment. These concerns have led regulators around the world to impose legislations on the usage of those raw materials, fostering their replacement with more sustainable solutions that reduce environmental impact.

Q: How do bio-based alternatives address these problems?

Solutions from renewable sources can help to meet sustainability demands from consumers and regulatory bodies. Our pine chemicals score high on sustainability because the raw material is a sidestream of another industrial process, does not compete with food crops, is not genetically modified, nor does it require new agricultural land. Instead, it originates from forests where pine woods are grown and harvested for the paper industry; and this sidestream of the pulp and paper industry is used as a raw material for biobased chemicals. This is resource efficiency in its highest form. Every part of the tree is used in the most efficient way to the highest value.

Q: What pine chemicals are used for bio-based coatings, and how are they extracted?

Our tall oil fatty acids (TOFA) are used in biobased coatings. To create TOFA, black liquor soap is taken from the Kraft pulp process and converted into crude tall oil (CTO). Our biorefineries distill CTO and extract high value added fractions from it. These fractions include TOFA as well as tall oil rosin, distilled tall oil and tall oil pitch. They are further refined and upgraded into biobased specialty chemicals at our biorefineries to enable superior performance. Beyond offering greater sustainability, it's important that biobased materials should offer good performance attributes.

The use of fatty acids in alkyd binder coatings system is not new, so introducing TOFA into the formulation process is not disruptive. Instead, it enables customers to enhance some of their product features while reducing their environmental impact.

Q: What other applications can pine-derived chemicals be used for?

Pine-based specialty chemicals can enable better performance in a range of consumer and industrial applications including adhesives, fuel additives, inks, mining, lubricants, oilfield chemicals, asphalt roads and tyres.

Q: At the ECS 2019, you launched a new TOFA for coating applications. Can you tell us more about that?

The SYLFAT Exp TOFA is our latest product designed for architectural coatings. It offers key features of our SYLFAT product family along with low initial colour and improved yellowing-in-the-dark performance. These benefits enable light colour and colour stability as well as enhanced high gloss, and scratch and corrosion resistance. The 100% biobased product offers significantly lower carbon footprint compared to other known vegetable oil-based substitutes.

Q: Do you have any other products in the pipeline?

Based on our customers and ever-changing market needs, **Kraton** continuously searches for new product development opportunities to address those demands. Currently, we are developing pine-based products with improved odour, colour stability and purity.

Q: How do you expect the coatings market to develop?

We believe that biobased solutions will eventually be the standard product of choice, not an alternative option. How long that will take depends on the pace of regulations and the quality that can be achieved in the different segments of the coatings industry. A first step is increasing the awareness of sustainable products already available in the market. Value chain customers need to be informed about the choices they have for more sustainable products. Thus, **Kraton** launched an animated video at ECS 2019 to explain the sustainable aspects of our SYLFAT TOFA offering for the coatings market.

Q: How should companies in the coatings sector prepare for these changes/developments?

Formulators need to monitor and anticipate regulatory changes that might impact their business. If they are currently using only hydrocarbon-based materials, they should start looking into alternative sustainable solutions and the tools or technology to support those materials. Stay updated on consumer demands in key markets, as their expectations will drive pressure upstream to formulators and manufacturers. Formulators will need to work with their raw materials suppliers to understand the sustainable options available to them.

Interview with:

Torsten Schmidt, Vice President, Marketing, Chemical Segment at Kraton Corporation, a producer of styrenic block copolymers, specialty polymers and high-value performance products derived from pine wood pulping co-products that is headquartered in Houston, Texas, USA.
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