

New Differentiated Products Might Be Disruptive As Well

A discussion with the developers of two game-changing technologies.

by Phil Phillips, PhD

Contributing Editor

phillips@chemarkconsulting.net

In the coatings, paints, adhesives, sealants, plastics and specialty chemicals industries, Chemark often comes across new product claims that appear to be “to-good-to-be-true.” They usually are.

However, about five to 10 percent of the cases the claims are not only accurate but they are exciting and can be potential “game-changers” in the market segment arenas targeted. Such is the case with BenTech of Southern Pines, N.C., and Luminescent Paint Technologies (LPT) located in Chicago, Ill.

Chemark sat down with the two company principles to discuss their technologies and marketing approach.

We asked LPT’s president and owner, Dave Postma, a few questions about their LPT-GLO product.

Q&A with Dave Postma, president and owner, Luminescent Paint Technologies

Chemark: What is LPT-GLO and what does it do?

Dave Postma: LPT-GLO is a single component urethane “glow-paint” that can endure long-term weathering and vehicle abuse loadings. It is a performance safety coating. The product comes in a wide array of UV stable daytime colors. It has a visible color in the day and a six to 10 hour glowing color in the dark. The paint, color and glow will last for years. It is a

product that will create limitless markets. When the lights go out LPT-GLO goes on.

Chemark: You invented LPT-GLO but why did you feel compelled to bring it to market?

Postma: I developed the product when I was asked to apply a luminescent product on stairwells. This product had day colors that faded within a few months of applications, as well as the paint itself immediately started to deteriorate. Within one season the color had faded to almost white, and more than half the application—at an astounding 22 mils which took almost one month to cure—was wearing or just plain falling off.

The primer was still there and in great shape. I addressed this massive failure with the company that made the luminescent paint. I told them that the paint needed to be changed from an arts and crafts resin system to another system to survive the harsh conditions. After three months the company told me it couldn’t be done. So I decided to do it myself. I went immediately to a urethane resin system for its versatility of applications, its superior durability, flexibility, versatility and fast cure time. In this new backbone system, we found a greater “footprint” bandwidth of markets and applications not possible before.

Chemark: So the features that exponentially broadened the use “footprint” of luminescent coatings are what?

Postma: LTP-GLO has and maintains day colors without UV fading; it withstands severe weathering and heavy loading abuse; and, with the proper primer can be painted on virtually any surface. It has quick dry and cure times. No other luminescent coatings do this today.

Chemark: What are some of the applications you see LTP-GLO economically fitting?

Postma: LTP-GLO creates new markets that were not possible before its creation.

For example, we see many market applications. Here are several for consideration: Airport runways; marine (ships/barges); mining (safety markings); DOT striping/signage; heavy equipment; emergency exits/stairwells; and safety markings of any kind.

Chemark: How are you marketing LTP-GLO currently?

Postma: LPT-GLO is initially being marketed through licensees in the coatings industry. Luminescent Paint Technologies (LPT) is an invention-oriented technical company. We do not claim to be marketers or even connected to the marketplace in a knowledgeable way. There are coatings companies in place who know how to successfully move LPT-GLO into the various niche markets.”

Chemark: How can interested potential licensee parties get in touch with you to discuss LTP-GLO further?

Postma: LPT can be contacted by calling 1-866-611-4569 (GLOW) or sending an e-mail to postmapainting@yahoo.com.

Chemark also asked BenTech’s chief executive officer, Matt Dyer, a few questions about their Preservor product line.

Q&A with Matt Dyer, CEO, BenTech

Chemark: What is Preservor and what does it do?

Matt Dyer: Preservor is our proprietary liquid product line that is highly effective at inhibiting mold, odor and rust in a variety of business sectors. Preservor is also effective at enhancing water removal from many systems. The active ingredient is potassium sorbate, a very safe and effective preservative which has been used extensively in the food industry for almost a century. The problem with potassium sorbate is it breaks down and loses its effectiveness when it comes in contact with moisture. BenTech’s

unique chemistry stabilizes the sorbate in liquid preventing its degradation. This benefit enables us to deliver enhanced product preservation in-formula or when topically sprayed. The enhanced product preservation means using less active ingredients, which results in cost savings to our customers. That's why we say, "Think of Preservor as sorbate on steroids."

Chemark: Why did BenTech feel compelled to bring Preservor to the coatings market?

Dyer: To date, all Preservor sales have been generated by direct application to substrates leading to success in the food, animal feed and construction sectors. Some of our bakery and fruit and vegetable contacts asked if we could achieve similar results by applying Preservor to packaging paper or film to provide similar preservation. Initial testing looks very promising.

Chemark: What are the main features that set Preservor apart from its competition?

Dyer: There aren't many products that have the broad benefits of Preservor. Using it as an additive to a paint or coating, you could achieve mold inhibition, corrosion resistance, preservation and faster drying all with one product. And, by the way, it's environmentally friendly.

Chemark: You mentioned rust inhibition as well. What applications fit in this market today?

Dyer: We have a separate patent for rust and corrosion. Based on testing to date, we could use Preservor as a "green" flash rust inhibitor. One of our more interesting ideas was to mix Preservor with concrete instead of water to see if we could prevent corrosion of the rebar. More work needs to be done but the rebar showed significant improvement.

Chemark: Are there other applications for this potential workhorse?

Dyer: You mentioned "potential game-changers" and I believe Preservor may fit this definition. I've heard it said that many of our greatest discoveries come by accident. During a pet food processing trial, we observed that adding Preservor in formula

resulted in faster drying of the kibble. The faster drying resulted in higher throughput—better absorption of capital costs—as well as a 30 percent decrease in energy usage. This revelation was news to us and led us to testing different grains and pulp and paper at several universities with similar results. We now have a patent pending on the improved dewatering technology. Last May, we completed a molecular modeling project at North Carolina State University where we were able to confirm the effect and understand the mechanism. We're now trying to optimize our formulation but, needless to say, we're very excited. As an additive, preliminary bench-top testing shows paints and coatings will dry faster. If dewatering is part of the manufacturing process, we may save energy costs and increase throughput.

Chemark: How are you going to market with Preservor?

Dyer: BenTech is primarily a research and

development company. Our strategy to date has been to partner with companies who have the expertise, infrastructure and relationships in place to successfully commercialize our technology and we're looking for the same fit in the coatings market. We're also flexible as to the structure of any partnership.

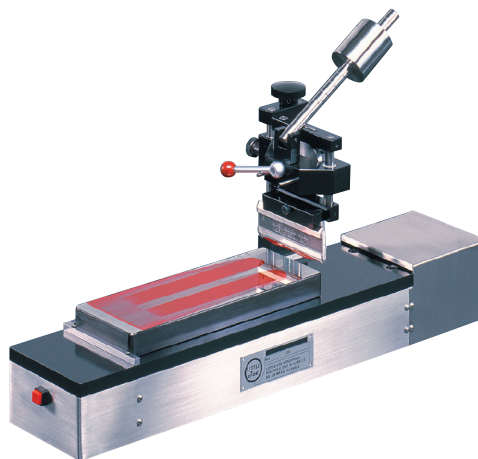
Chemark: How can interested parties get in touch with you?

Dyer: You may call BenTech at 910-974-4466 or e-mail me at mdyer@bentechonline.com.

For future articles, Chemark would be pleased to review new coatings, paints, adhesives, sealants, formulated products or product ingredients that have an opportunity to have an impact on the status quo of our served industries. Please contact us by phone at 910-692-2492; by email at john@chemarkconsulting.net; or visit us on the web at www.chemarkconsulting.net. **CW**

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