

Putting Out the Fire



By Jennifer Sikorski,
CF Assistant Editor

CF: How many employees do you have?

JR: Nine full time and eight consultants.

CF: What is the nature of your company?

JR: Fire retarding and smoke suppressing technology in the form of coatings and polymeric additives.

CF: What is your company's niche?

JR: We cater to commodity markets, where there is a lot of acreage, but then we also have products that can be categorized as client-specific.

We have innovative products that can be used to assist people in overcoming obstacles in fabrication, such as our veil, or our mat. We have a written agreement with Hollinee on this technology. The surfacing mat can be used for composite FRP fabrication purposes that dramatically reduces surface flammability and suppresses smoke generated by the composite part. And what that enables you to do is to use it in conjunction with other fire retardant components to reduce costs. In this case, our very effective technology is oriented where you need it, which would be on the surface of a part because that's the part that first gets exposed to open flame. That's a commodity-type product, and we expect to sell acres. On the other hand, we have water-based fire retardant coatings that can be applied to thermoplastics and thermoset composites that can dramatically reduce the ability of a thermoplastic or composite to combust or generate smoke, even at a very thin coating thickness.

CF: How did you get started in the industry?

JR: I am a graduate of the University of Massachusetts and I have a Bachelor of

Science degree in chemistry. I worked for Akzo-Noble for a number of years after I got out of school. I then worked for an associate company that was a resin manufacturer in New England called Advanced Coatings. Both of those opportunities gave me the luxury of getting into a lot of different types of companies with different types of processes. When I was with Akzo Noble, I was in the Specialty Chemicals division, so I was able to get into a very wide range of companies that

John Rowen,
Executive
Vice
President
Avtec
Industries,
Inc.
Hudson,
Mass.



employ different types of technology to fabricate parts, from pultruders to filament winders to compression molders, etc. I then went to work for Enduro Systems in Huston and started Enduro System's waste water and water treatment products group. And they're probably right now the largest supplier of composite tank covers and composite baffle systems to the water treatment industries. And it was at that point that I had been collaborating with some friends I knew locally, and one of my friends—now we're partners—had the opportunity to acquire patent rights on a coating that a consulting firm had done for NASA that would have been a replacement or an option for the ceramic re-entry tiles on the re-entry shroud of the space shuttle. With my background from Akzo-Noble and Advanced Coatings, I saw how clever the technology was, and I was able to take that technology and re-formulate it to make it applicable to the composite

industry's processes and products. We were able to demonstrate that it was technically sound and, through private investment, started Avtec.

CF: Did you face any problems when getting started in the industry?

JR: There have been a lot of improvements in the last 10 years in the composites industry, but it's pretty much been limited by the available raw materials, particularly when it comes to fire retardancy. It was difficult to communicate to people that there was a new non-toxic technology that dramatically reduces surface flammability, and additionally is very dramatic at suppressing smoke. That's a difficult concept to get across to people because it's been considered more of an empirical art. Our core technology is a very clever blend of materials that I was able to extract from the space shuttle coating research and reformulate for specific application to the composites industry.

CF: What obstacles do you face today in the regulatory area?

JR: I think the biggest obstacle is the way regulatory agencies and regulatory local authorities look at fire protection. Unfortunately, the way the code system works is that you have to meet what is called a prescriptive code, which is a test, for instance, that might give you two data points. Since the early '50s, it's just been a simple test that's used as a pass-fail when applies to building materials. Well, that's not sound fire safety engineering. And unfortunately, in many cases, many of the tests are not technically sound in regard to life safety issues. These tests are easy for authorities to prescribe and are a toll you have to pay to get into a particular project. But they're not always pursuant to real-world fire and smoke-safety applications. We're trying to get code authori-

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