

# YourResource

F O R L I V I N G

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## J6 Polymers

Genoa's space-age specialists

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A great pick for fall fun

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Reconstructing history

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J6

Polymers  
FROM DEKALB COUNTY TO

MARS


A close-up photograph showing a hand wearing a blue nitrile glove holding a large, cylindrical, yellow, porous polymer sample. The sample has a textured, sponge-like appearance. In the background, there is a white container with a decorative swirl pattern and a small red berry-like detail. The setting appears to be a laboratory or industrial facility with stainless steel equipment.

Just off Route 23 as you enter Genoa, the J6 Polymers plant occupies what used to be the site of a lumber yard. There is a subtle irony to the company's repurposed location. Like the lumber yard, J6 is in the business of supplying raw materials used in hundreds of different structures. That, however, is where the similarities end. J6 produces the liquid components of high-tech polyurethane systems that will find their way into airplanes, missiles, rockets, naval vessels, and other structures that must be light and strong. They are, very literally, a space-age company.

Within the plant's cavernous "blending" building, where the company's special chemical formulations are combined and tested, the stacks of 2x4s and sheets of plywood have been replaced by gleaming stainless-steel tanks and mysterious looking chemical drums, grouped by color. Behind this building, another structure houses even larger tanks, and behind this, an entire tank farm, two stories high, is springing up in what was once the lumber yard's outside storage area. An elevated pipe, hung like a monorail on steel beams, connects the tank farms to a railroad spur, where a loading tower awaits the arrival of custom-built tanker cars that will distribute J6 products around the country.

While J6 Polymers is only two and a half years old, its history goes back nearly 40 years, to a time when its founder, Bob Wood, helped launch the polymer division of Stepan Company, a global chemical solutions company in the Chicago area. "I helped establish this division in 1982," he recalls. "It was a very tiny part of Stepan's revenue at the beginning, but today is a major part of their overall business profitability. I actually went on to fill a lot of other roles at Stepan, including R&D, general management, and executive management, helping to build and acquire chemical facilities all over the world."



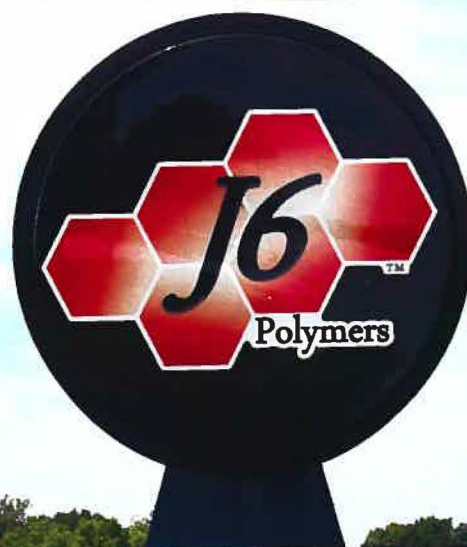


"After I retired, I really had no thought of building my own business," confesses Bob. "However, I had three highly-qualified sons who had just finished or were finishing their college education and were looking for careers in what was then a pretty depressed job market. At about the same time, a small piece of the polymer division at my old company went up for sale. I knew its potential and its value, so after some family discussions, I put in my bid and won out over many other companies that were competing to purchase this specialty polymer business."

Gesturing to a framed display of space shuttle arm patches on the wall of the J6 conference room, Bob explains what he means by "the potential and value" of the business he purchased. "Those are patches from all 137 space shuttle missions," he states. "Every time a company supplied some component to a shuttle mission, they received a patch. NASA tells us we're the only company that they know of that has a complete collection. Our company was very proud to be a part of the shuttle program with NASA and we are currently involved in their Mars program."

This revelation sets the pattern for our interview with Bob and his son James, who along with his parents and four siblings form the ownership of J6. Every answer to a question leads to a dozen other questions about this unique company. What exactly does J6 Polymers manufacture that would be required in every shuttle mission?

James produces a small sample of J6's end product, apparently a piece of foam not unlike the stuff you'd purchase in an aerosol can at the hardware store to shoot into a gap in a wall or a space around a pipe under your sink. The foam is off-white and clad in a thin layer of



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some other material. It is obviously a small slice of some larger structure that has been cut away to reveal the layers of materials. The whole display is a little larger than the length and diameter of the grip on a golf club.

"This is some of our product covered by carbon fiber," says James. "By themselves, you could easily snap either the carbon fiber or the foam in half, but when you laminate them together, they're incredibly strong, and light." He hands us the sample, which is indeed feather-light, and encourages us to try and snap it. It's as unyielding as a piece of steel.

Bob points to a photograph on the wall showing a space shuttle sitting on a launch pad. "That big tank in the middle is polyurethane foam covering aluminum. It's about 15 stories tall and would collapse on itself without the foam. Since the tank is also filled with liquid hydrogen and liquid oxygen, the insulating qualities of the foam also keep you from freezing your hand if you touch the aluminum skin."

"Common wisdom tells you that you can do light, or you can do strong, but that you can't do both at the same time," he continues. "NASA and the aerospace industry have really broken through that barrier, and the products we produce are a big part of how they do that."

Bob says that to understand the real value of the business he bought from his previous employer, you have to look beyond the idea of tangible assets. "The value of the business derives from the customer approvals it acquired over decades of doing business with NASA, the Defense Department, commercial aeronautics companies, and others to develop the approvals and business we have. No one would just go into this business now without these approvals. It would take years to acquire

them and cost millions and millions of dollars. Our clients already know we can meet their specs and achieve the incredibly tight tolerances they demand for our product."

While J6 may have inherited the trust of its clients, when NASA plans to launch a new mission or an aeronautics company is building the next generation of commercial airliners, the component specifications and requirements are only becoming more stringent. James notes that J6 owns the same processing equipment that their clients will use to make finished product at the other end. "We only produce enough finished product here to test its qualified properties," he explains. "The client will run their own tests, but before the components leave J6, we make the final polymer and run those samples through many tests. We might run 50 tests on the same product. We can measure strength, insulating characteristics, vibration dampening capabilities, how the product will behave in temperatures that may vary by hundreds of degrees—we can test for just about any combination of conditions or stresses the final product might have to withstand."

James, who has an MBA and, like his father and all his siblings, has a background in chemistry, says the specs for a single small application might be contained in a document that is as thick as a novel. "I had to get up to speed pretty quickly on these things," he remembers, smiling. "My dad took a vacation only two days after we started the company and said, 'I'll see you in a couple of months.'"

No doubt, the competence already shown by his children had something to do with Bob's willingness to step back from the day-to-day operations of the new company. Two of his sons and one of his daughters have master's degrees in business or science while the other two have four-year bachelor's degrees. "I've actually been in business with my children since they were teenagers," notes Bob. "I own some apartment complexes, and while the kids were in high school and college, I would turn over the running of a complex to each of them, telling them they needed to collect the rent, do the maintenance—whatever it took. They did a great job, and they learned things like plumbing, electrical work, carpentry, and dealing fairly with people. A principle that is critical to every company."

While daughters Jessica and Jennifer have careers outside of J6, James's brothers, Josh and Jon, play key roles in the new company. Jon oversees operations, purchasing, shipping, and inventory control, while Josh works in R&D as well as quality control.

"That's where the name 'J6' comes from," says Bob. "The first J is for Jesus Christ, because my faith is very important to me, and I wanted to found a company on Christian principles. The five additional J's represent the kids whose names all



start with the letter J. We think like a big corporation in terms of our vision and how we go about our work, but in other ways we're taking a different approach to our role as a corporate citizen of our area."

The evidence of this different approach emerges as Bob points out various practices and procedures he and his sons are following as they build their business. For instance, the tank farms out back are double contained, in case of a spill. Regardless of the relatively benign nature of the chemicals J6 uses, they over-specify all of their equipment and structures, but Bob says if follows one of his own rules. "I like to hunt, so I own guns. If you treat every gun as though it is loaded, you don't have accidents. I treat chemicals like loaded guns. I just assume that all chemicals are hazardous and that something could happen, so I do everything to make sure it doesn't."

Other ways that J6 is taking its role in the community seriously include a policy to source its labor and materials as close to home as possible. "If we can't find what we need in Genoa, we'll look elsewhere in the county, then the region," James says. "We're trying to benefit our own community, even if it costs slightly more."

Benefitting those closest to you is also an internal policy of the company. Bob says that J6 has already paid for several non-family employees to finish their college degrees, and they currently have a chemistry major in his third year of study as an intern. "We want our staff to develop and grow right along with our company," he mentions. "That's important to us."

With the new facility still under construction, J6 is running only one shift, with about 10 employees, but they expect to be up to three shifts in the next few years. According to Bob, however, this is only the beginning of the company's growth. "We're a little company with visions of grandeur," he says with a laugh, "but I know how to build an international business, and that's where we're headed. We ship to many countries today and plan on building a plant overseas as part of our long-term vision."

J6 Polymers may be headed even farther than that. Back in the conference room, after our tour of the facility, Bob points out a rendering of the rocket that will eventually take NASA astronauts to Mars. "We're already in development on a number of new projects," he says with a slight grin. "I can't talk about everything we're working on, but let's just say there's a lot more to come from J6 Polymers."

"Brian Ellingson, our Resource Advisor, and I just clicked when we met. When I told him what we wanted to do here in Genoa, he got me in front of Senior Management at Resource Bank, so I could convince them I wasn't crazy. We're a different kind of company, but Resource is a different kind of bank. Like us, they believe in community, and we were glad we could finance the loan for the purchase of the polymers division through our local bank."

Bob Wood



Back row from left to right: Justin Bristle, Jon Wood, Bob Wood, Josh Wood, Doug Olson. Front row left to right: Jacob Waddle, James Wood, Justin Kaecker, Jon Olson.