

TNEMEC COMPANY CELEBRATES ITS FIRST CEMENT

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Back when Albert C. Bean, Sr., launched Tnemec Company, Inc., he'd tell you that the company only had three products: "One that was shiny, one the wasn't and one that you buried." Now, 100 years later, the company proudly boasts numerous patented innovations and over 250 products manufactured to meet the highest standards in quality performance for the protective coatings industry.

As Tnemec celebrates reaching the century mark of its business, I recently had the pleasure of traveling to the company's corporate office in North Kansas City, Missouri, to meet the folks behind the brand, learn about its history and see where the paint manufacturing magic happens.

A History Lesson

The beginning of Tnemec's legacy dates to 1921 when Bean Sr.'s interest was piqued by some uncorroded steel reinforcing bars sticking out of a pile of old concrete rubble. Recognizing the anti-corrosive nature of cement, he began producing a patented cement-filled coating formulation at the then Armor Oil & Chemical Company.



Tnemec's founder, Albert C. Bean, Sr., circa 1960, poses in front of an early display filled with one-gallon buckets of the company's coatings.

PHOTOS COURTESY OF TNEMEC COMPANY, INC.; BACKGROUND: SONATE / GETTY IMAGES



According to Tnemec's current President, CEO and great-grandson of Bean Sr., Chase Bean, the original cement-filled coating – now updated to meet current standards – still serves to protect structures from corrosion today. Chase started his career at Tnemec in the company's technical services laboratory and on job sites where its coatings were being applied. Later, his roles would progress through various sales and business development positions until he was named Executive Vice President. After eight years of managing sales, marketing, research and development and technical services departments, he was brought on to his current role.

In the 1930s, to better make the correlation between Bean Sr.'s newly developed cement-filled coating with the company's branding and image, he officially renamed the company "Tnemec" – or "cement" spelled backwards. According to Tnemec, its unique name has continued to impact

"Putting cement in long oil alkyd resin was an innovative formula in its day. It was the original product of the company," said Tnemec Executive Vice President, Cory Brown, who has been with the company for 25 years. Brown is a certified coatings inspector with NACE International and is active in the Society for Protective Coatings (now AMPP). "Then fast-forward through history to 1966 when we introduced [what would become] the first NSF-certified epoxy, compatible for water tank linings."

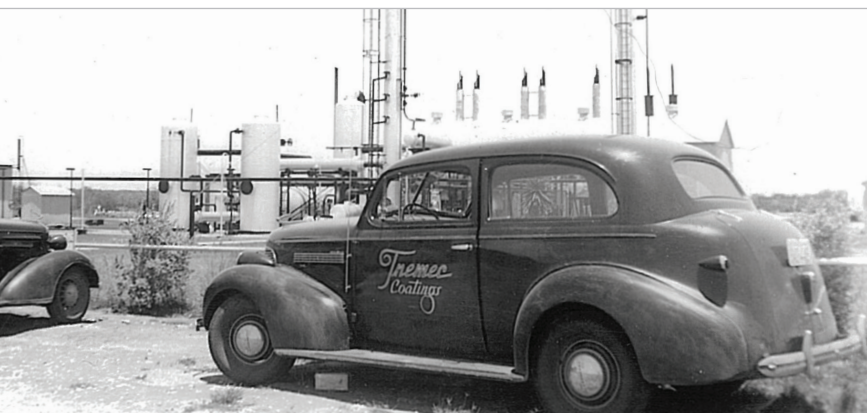
Anyone familiar with coating systems for water and wastewater structures is well acquainted with NSF/ANSI 60: Drinking Water Treatment Chemicals – Health Effects and NSF/ANSI 61: Drinking Water System Components – Health Effects regulations. Both regulations were established in 1988 following a request for proposals from the Environmental Protection Agency that was awarded to an NSF-led consortium in 1984.

In developing the very first epoxy technology for these types of structures decades before they were standardized, Tnemec was asked to serve on the committee that worked to write the NSF 61 standard and define what it required. Some years later, the company would be brought back on to help develop the S.W.A.T. testing protocol – otherwise known as ASTM G210-13 – and a line of high-quality products that would perform in severe wastewater conditions.

However, innovation didn't stop with just a few product offerings or creating industry standards, which is what kept Tnemec chemists focused on developing solutions for other types of coating requirements, whether it was before they were needed or after a need had presented itself. Other notable innovations the team touched on were the company's zinc-rich primers, fluoropolymer finishes and thermal insulating coatings.

By 2008, Tnemec's sales surpassed \$100 million. A little under a decade later, in 2017, the company invested in a one-of-a-kind research and development laboratory at its headquarters.

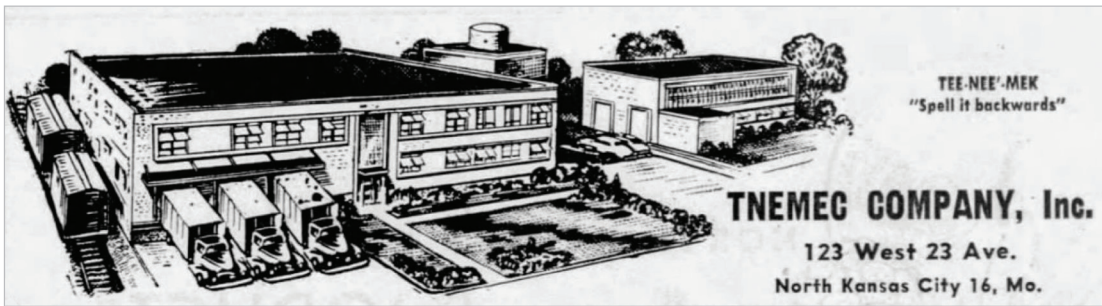
Today, Tnemec is one of the largest privately held protective coatings manufacturers in North America, having coated surfaces all over the globe, and with manufacturing facilities in two additional locations Baltimore (mid-1970s) and Shanghai (2010). To better meet its customers' needs, the company also opened



Armor Oil and Chemical Company changed its name to "cement" spelled backwards, or "Tnemec," in the early 1930s, and began selling its inventive primer to customers throughout North America, especially in oilfield regions.

the way the company operates, in that it pushes its employees to look at every project and formulation in an unconventional way. (This includes celebrating its centennial as well, having spelled "century" backwards, too.)

In 1950, Tnemec found a place to call home on 123 West 23rd Avenue in North Kansas City, where its main manufacturing facility remains today. A little over a decade after establishing itself at the newly built facility, Tnemec hit an economic milestone having made its first \$1 million. As this growth was being achieved at the company, research and development teams were also making history in the protective coatings industry by expanding the company's paint offerings and developing innovations well before their time.



Tnemec's North Kansas City production facility has been the company's main manufacturing site since 1950. The company now operates three other manufacturing facilities alongside this one, including sites in Baltimore, Dallas and Shanghai.

additional distribution centers in Atlanta, Dallas, Indianapolis, New Orleans, Seattle and Compton, California.

According to data from the U.S. Bureau of Labor Statistics, only two out of every three small businesses with employees will last two years and only half will surpass five years. On an even larger scale, researchers from Cornell University's SC Johnson College of Business reported that the average lifespan of a family-owned business is 24 years. To add to that point, roughly 40% of U.S. family-owned businesses transition into a second-generation business, approximately 13% are passed down successfully to a third generation, while only 3% survive to a fourth or beyond.

Upon reaching its centennial, Tnemec is now also one of the oldest coating manufacturers in the United States. While some competing corporate manufacturers have been around since the late 1800s, it is a profound business achievement for Tnemec and its team to have continued operating a privately-owned, family-oriented operation.

Taking A Tour

When Chase Bean walked me through Tnemec's 1950s-era manufacturing facility, he compared the craftsmanship of mixing a coating to that of baking a cake; There is a chemistry to it that requires precision and attention to detail that the company's blue-collar artisans take on when putting together the day's orders. Like the baker, these master coating creators must carefully weigh out their ingredients by hand before pouring them into any of Tnemec's many different types of paint mixers.

Spattered with color by decades of use, these unique and seemingly timeless machines

immediately catch one's attention as they churn vigorously, grinding up a particular coating's pigments and resins at high speed (something like a baker's KitchenAid, perhaps, using a wire whip on speed five or six). In some of the industrial-sized vessels the mixing of the coating must be monitored throughout the production process to assure stable temperatures, accurate viscosities and formula specified grind. The batch production capacity in this particular facility ranges from upwards of 5,000 gallons to as small as one liter, all with the same hand-crafted quality control and precision.

While the manufacturing facility is rather loud, as to be expected, the smell of paint isn't quite as overwhelming as one might think, as these mixers remain fully covered until the batches are completed and packaged onsite. The water-based and high-solids coatings crafted within the facility have practically zero odor at all and are mixed using a sweep blade (like the KitchenAid Flex Edge Beater, if we're keeping up with metaphors), which motion after motion collects the paint from the mixer's sides, sweeping it back into the body of the forming liquid.

When you're not awestruck by the manufacturing machinery itself, you'll notice the collection of ingredients, from Titanium Dioxide to in-house crafted solvents, synthetic colorants, mixed metal oxides, paint thinners and more (certainly, this can't be compared to an actual baker's pantry) carefully piled and stocked across pallets and paint-splattered concrete floors.

As we left the birthplace of coating orders and meticulously hand-crafted Tnemec paints, Chase then took me to the "brains" of the operation, where the ideas for coatings are

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thought up, tested and assessed: the research and development facility.

The facility was recently expanded in 2017 and is nothing like your high school chemistry classroom. Exceptionally clean and organized, my own mind began to wonder about all the coating discoveries and paint innovations that had been made within Tnemec's R&D walls. To learn more about the chemistry process, Vice President of Research and Development, Remi Briand, put things into a perspective I could better understand and appreciate.

Briand has been with Tnemec for 23 years. During that time, he's been responsible for managing countless R&D projects, performance testing initiatives and quality control. Briand was also responsible for the obtainment of several patents that greatly increased the company's portfolio of high-solids and water-based coatings and other innovative technologies.

Similar to Chase's baking metaphor, Briand took to the similarity of being a chef. And just like the baker or the chef, the coatings manufacturer has its own set of "farmers" or chemical companies that provide new ingredients and molecules to test and incorporate in the lab.

"It's cooking because you have additives, which are like your spice, and you have to be able to repeat it. Even if you have a recipe and you have five people here trying to recreate it, you're not going to have the same cake; It's the same in paint," said Briand. "It's a material-science

chemistry, meaning it's different than analytical chemistry or pharmaceuticals. We don't develop new molecules or polymers; we have to work with what our suppliers give us to create a paint formulation.

"When you make some different molecule, it's more, you have to work with what you have. When you make it, you can feel it."

Unfortunately, even when a chemist makes something that works, changing regulations could force the manufacturer to revisit a coating formulation. On the other side of things, when a standard isn't changing across the board for the industry, chemists could still be faced with a unique problem that engineers and specifiers are looking to solve. Or maybe, they're simply looking to increase the color stability or improve the gloss longevity, flow ability or any array of properties that might make a coating easier for the applicator to apply or generally improve the coating itself.

"It can take 10, 15 years to change – it's very conservative. Innovation is slow," Briand continued, "you have to have a lot of patience."

There is no question, that the unconventional thinking that Tnemec bases its ideals from is what pushes the R&D department to not cease in their combined efforts to find new chemistries and coatings formulations, but to continuously chase the innovations that make their own products better, too.

"You can't just rest and enjoy the spoils that come from existing technology," added Chase. "You have to keep reinventing and seeking that better performance and quality that's out there because we know that with the current regulatory environment, that's going to push the industry or shift the demands in raw materials and supply chain. We always have to be looking for the reliable, quality ingredients that are going to support this company."

Beyond regulations and performance of a product, the team prides itself in saving a sample of every coating for its customers. What otherwise might sound or look like a hoarding-type measure not only gives the team the benefit of revisiting a coating for potential improvements, but it provides an assurance that the durability and lasting qualities hold up and are reliable for returning and new customers.

Since the beginning, Tnemec personnel have focused on creating and fine-tuning their formulations based on coating performance, taking time to test their new products before going to market.



PHOTO COURTESY OF TNEMEC COMPANY, INC.



In 1950, Tnemec shifted its sales strategy and began selling its coatings through independent representatives instead of supply houses, a company strategy which continues today. Tnemec holds national sales meetings every year where representatives visit company facilities and learn more about new products and company initiatives.

The Next 'Yrutnec'

Originally launched by a corrosion-fighting idea that Bean Sr. got into his mind to better protect steel, the drive to provide innovation in every coat carried the company through decades of up-swings, downswings, depressions, recessions and economic booms. From Albert Sr. to Albert Jr. or "Ace," to Pete Cortelyou, and now Chase, Tnemec has continued to boast its private ownership and entrepreneurial spirit as the keys to its success.

To get a better gauge on the timeline and what this achievement means to the team, I spoke to several members of Tnemec's senior management team and some onboarding individuals as well on how the company made the immaculate milestone of surviving 100 years, its values and what the industry plans for the future.

In sitting down with Brown to discuss his quarter-century with the company, I was informed that he had really worked himself through the ranks at Tnemec. Having started as blue-collar paint mixer in his early days, Chase and other employees recognized his potential and technical knowledge and decided to put him through business school at the University of Missouri-Kansas City. Now, sitting before me with a recently completed MBA, Executive VP Brown noted that the entire experience seems to have gone by in "the blink of an eye."

"It's a unique kind of feeling that I have with the company turning a hundred years old. We've

got some folks who are still at the company who just celebrated their 40th anniversary, a whole pile of them as a matter of fact, and two of them about to achieve 50 years," said Brown. "So, imagine how they must feel – half the company's life they've been here! And you know, it probably feels short to them, too."

Despite how quickly the years seemed to have gone by, especially when reminiscing about past times, Brown further noted Tnemec's ability to avoid top-down management as one of the major contributors to its success, among other things.

"We try to educate our employees, empower them to help us run the company and engage them in the most difficult problems that we have, that we see. And then we solve them, literally as a team. And that takes a lot of pressure off senior leadership so that we don't have to think of every solution for the company," said Brown.

"We have wonderful people everywhere in the organization. They help us run a successful business. And so the next hundred years..." Brown said as he gestured humorously and humbly, ultimately implying that it wouldn't be difficult to reach a second milestone. With laughter and hope for what's to come, it was clear how passionate Brown really is about what Tnemec stands for and most importantly, the people involved with its continued triumphs.

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Mark Thomas, Tnemec's Vice President of Marketing also touched on this aspect of the company, saying that, "One of the things we really try to strive for here is to make sure that we give people not just opportunities, but really get them involved where they can seize those opportunities in their careers, and they can grow with the company."

"We love that people stay here for a while. We like those people to be at the company where they really get to know not only our culture, but our products and customers. And I think that's one of the strengths of Tnemec, is when you've been here a long time, you really, truly understand what the company is about."

Thomas speaks from a similar stance as Brown, having also spent over two decades with the company since joining in 1996. Currently, Thomas supervises and coordinates Tnemec's marketing department, inside sales team and segments of the sales department. He is a NACE CIP Level 2 Coating Inspector and holds a bachelor's degree in journalism and a master's in integrated marketing communications, both from The University of Kansas.

In hearing an echo of shared support for the company and pride in its team – its family – I asked Chase about what he thought his great relatives might think about where Tnemec is today.

"Twenty years ago, Ace would remark how his father wouldn't believe what the company had become, since originally it was truly a small paint shop that supplied steel shops," said Chase. "Even from Ace's perspective, it was incredible to witness how much the company had grown. So, I kind of relate that to what the Ace we knew would say today. He would be absolutely baffled – really surprised and excited that folks carried on that vision and legacy he gave us."

While to some, the centennial might seem to have arrived in the blink of an eye, I wanted to know more about what core values had been established during that time, and what would be the most important things to take into the future as the industry continues to face modern day issues, like fragile supply chains, material shortages and other effects of the COVID-19 pandemic.

"I would say, when you get just beyond the personal interest in the family of employees – I think that the people come first," Chase said thoughtfully, "but immediately thereafter, when you talk about what essentially is 'Tnemec,' it's the product and the quality of the product, the quality of the ingredients we use."

"The raw materials we source, the way we manufacture it – it's a handcrafted experience. There's a lot of experience and artisan knowledge that goes into it. And while it can become a cliché concept to say, 'Oh, it's just in the quality of the products,' that really is how the people at Tnemec look at it."

To add to that, Brown noted that there is a choice to be made by every coating manufacturer: to be a quality leader or a price leader. "You can be one or the other. You cannot be both. And we chose to be a quality leader – it's really the guiding principle of the company. You'd be surprised how many decisions are affected on a daily basis by the choice to be the quality leader in the industry."

However, during a time where many companies are strained to obtain certain paint ingredients and resins, which could ultimately affect the quality of a product if they are to substitute or modify an aspect, I inquired what the team's "butter buckets" were. You see, Chase informed me that during WWII,



Albert Jr. "Ace" & Molly Bean hold the ceremonial shovel at the groundbreaking of Tnemec's then-new 21,000 sq. ft. corporate operations building in 1980.



Over the last 100 years, Tnemec coatings have been applied to countless well-known structures, including the first Tnemec “Tank of the Year” winner in Rosemont, Illinois, and the world-renowned Rock & Roll Hall of Fame in Cleveland, Ohio, to name a few.

the company occasionally had to use wooden butter buckets to deliver its products, as the nation suffered from steel shortages.

For Chase, living in a much more technology-based era, though faced with similar shortages and material inflation, communication and open-book management was and continues to be key in working through current industry hurdles. The more the team can stay connected and informed about what’s missing or needed is crucial in working together to decide what the next steps are and how the company can work to continue its success and reach its goals.

Apart from innovation, another pillar in the company’s growth strategies and its commitment to industry are acquisitions. Although innovation remains at the core of the company’s values, it is just as important to add sales staff and expand, the team noted, adding that the company is planning to develop several acres by its manufacturing facility for expanded operations.

In 2019, Tnemec announced that it had purchased the assets of Textured Coatings of America, Inc. (Tex•Cote). Established in 1961 in Los Angeles, Tex•Cote manufactures high-performance, water-based coatings for use on commercial, residential and Department of Transportation projects. More recently, in November 2021, Tnemec announced the acquisition of protective and structural-grade coatings and linings manufacturer Epoxytec International, Inc. Established in 1990 and based out of Hollywood, Florida, the company was formed by Italian immigrant Joe Caputi, who was previously an independent distributor for a specialty coatings company. His son, Michael, joined the business in 2001.

“In some cases, these acquisitions have been opportunistic where we’re either going to be looking at new technology that we don’t have, which is going to be kind of rare, or a distribution footprint that is new – much like what happened with Tex•Cote,” said Chase.

“But most important of all, which was essentially my biggest pitch to an entrepreneur like Mike Caputi, we’re looking for companies with excellent people in them, because unlike a global giant, we can’t come in and run a business for someone. We need those folks.

“We’re happy to bring them onboard as a part of the Tnemec portfolio family of businesses, but we need that company to be able to stand on its own and do their work and with our support and a little bit of guidance, be a part of the big team.

“A lot of times, you know, we’ve seen it in every industry on the planet, you see a big company absorb a smaller company and all of a sudden the branding’s gone, the people are gone, the factories are gone, and it’s just gone. We can’t do that. That’s not our approach.”

It is with these ideals, values and goals in mind that those at Tnemec intend to carry forward for the next 100 years. While times may sometimes feel uncertain for the economy and the industry, the company’s only priorities are to not derail from its quality, lose its hunger for innovation or fail its customers’ expectations. And, with a family who firmly believes in its style of operations and the products they produce, there is no limit as to where Tnemec is headed or where it’ll be in 2121. JPCL

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