

**COMPANY PROFILE ///**

**PLIBRICO**

# **A TRUSTED SOURCE FOR REFRACTORY SOLUTIONS**

Plibrico is able to offer its high-quality product line with the help of an in-house research and technical development team. (Courtesy: Plibrico)

# Plibrico has pioneered the research and development of refractory technology essential for the most demanding thermal conditions for more than a century.

By **KENNETH CARTER**, Thermal Processing editor

**P**librico's name may sound a bit unusual, but what the company offers the thermal-processing industry is anything but.

That innovative commitment to heat-treating comes in the form of designing, manufacturing, and installing refractory solutions that safely improve productivity, temperature control, and service longevity, according to Brad Taylor, Plibrico's president and CEO.

"Plibrico's products and services enable our clients — the heat-treat and thermal-processing industries — to safely and efficiently create quality products for *their* customers," he said.

## CONCEPT-TO-COMPLETION REFRACTORY NEEDS

Plibrico maintains an integrated supply chain that allows for turn-key concept-to-completion refractory products and services needed to stop mechanical stresses, abrasion, and corrosion brought on by high temperatures and the daily wear and tear caused by production, according to Taylor.

"We have refractory product development and manufacturing that includes advanced castables with low cement, ultra-low cement, or no cement; along with gun mixes; plastics; and shotcrete," he said. "And then, to help reduce client downtime, we manufacture precast shapes and have our fast-track line of products that offer an accelerated bake-out."

Plibrico is able to offer its high-quality product line with the help of an in-house research and technical development team that truly understands industry applications and clients' needs, according to Taylor.

"To fully service our clients, Plibrico has a network of refractory installation offices and partners that help to provide a complete solution for our clients. Everything from new construction installations, to complete rebuilds and repair of refractory linings, including the demolition and tear-out as well as bake-out services," he said.

That means "being there" for each and every client when they most need help, 24/7, and making sure the company is a trusted source for refractory solutions, according to Taylor.

"We are driven by a customer-first philosophy," he said. "Over the years, refractory technology has developed from a simple idea into a complex, ever-evolving solution. Plibrico provides advanced, proven technologies and unparalleled service to thermal processors. Refractory solutions are engineered by application specialists who form close partnerships with clients. We like to focus on client out-

comes, not just products, to successfully develop the correct solution for clients. Through the lens of our clients, we work to understand the problem and then drive to define a solution, that gets the client's key processes online as safely and fast as possible to help minimize lost production time. We've been focused on solutions that help the heat industry reduce downtime and extend refractory life."

## PLIBRICO REDI-SHAPES

One product Taylor said the company offers in particular that has helped clients minimize their downtime is Plibrico Redi-Shapes®.

"That's our trade name for our custom-engineered line of precast shapes, which we design and manufacture internally to exacting specifications — any size or intricate configuration — depending on client needs," he said. "Custom firing options help combat specific application challenges such as abrasion, erosion, thermal shock, or



The Plibrico Company was founded in 1914 by the Schaeffer family when it opened its doors as the Pliable Brick Company. (Courtesy: Plibrico)

metal and slag penetration. Redi-Shapes enable fast refractory lining replacement, especially in recurring high-wear zones, from weeks to days. Our Redi-Shape solution is really built upon the knowledge and genuine expertise that our team has in both refractories and installation services."

Downtime compression becomes a huge factor in whether a client is able to meet its company production and financial goals, according to Taylor.

"Our team continually demonstrates time and again its customer-driven core values combined with a swift response flexibility where we can really enable our customers to get their critical heat-



Plibrico is known for its plastic refractories, the first product that came out from the company. (Courtesy: Plibrico)

ing systems back online and operating quickly,” he said.

## PANDEMIC CHALLENGES

With COVID-19 affecting a large part of the world over the last year, Taylor noted that, as the industry snaps back, it’s caused an increase in demand for Plibrico’s clients’ products.

“As the economy recovers from COVID, the heat-treat industry, like other thermal-processing industries, is running its equipment full-out,” he said. “Production demand is there. Thermal processors are struggling to keep up with their customers’ demands. And if you combine the increased demand with the upstream supply chain challenges the industry as a whole is facing, thermal processors are depending on companies like Plibrico more and more to provide critical components and services that are all geared toward minimizing unexpected interruptions and downtime.”

Many refractory companies during 2020 took the approach of reducing their working capital by limiting inventory or relying on their raw material suppliers to have product readily available, but Taylor emphasized that Plibrico took a different approach.

“We didn’t do that,” he said. “With the uncertainty of COVID, we managed the working capital of the business, but we did so by right-sizing our inventory — making sure we had the right products and raw material on the shelf, at the right time, so that we were ready to satisfy our clients. We anticipated the pent-up demand. And while I’ll admit our timing was a bit lucky, our strategy was intentional.”

## OUTCOME PROBLEM SOLVING

Focusing on outcomes happens to be Plibrico’s problem-solving philosophy, according to Taylor.



***“We are preparing for a much more sophisticated thermal-processing industry.”***

“Our technical team and project managers listen to the client to truly understand what the pain-point is or the problem the client’s trying to solve,” he said. “And, sometimes, that’s a real challenge. Clients know what the symptoms are; they know what they’re trying to take care of, but they really look to us to identify the root cause and then develop that full solution that fixes their issue.”

“More often than not, what we find is clients will come through our application or technical side, not necessarily looking for a product, but wanting to have someone to talk through an issue or a problem they’re having,” he said. “We look to really understand what the root cause is — whether it’s a corundum issue, a thermal expansion and contraction problem, abrasion difficulty, or other challenges — and from there, we’re able to develop a full solution that includes both products and services, so clients have a complete solution vs. just part of the answer.”

## WHAT’S IN A NAME?

But just where did the name Plibrico come from?

The Plibrico Company was founded in 1914 by the Schaeffer family when it opened its doors as the Pliable Brick Company, according to Taylor.



Far left: Plibrico maintains an integrated supply chain that allows for turnkey concept-to-completion refractory products and services. (Courtesy: Plibrico)

Left: Plibrico Redi-Shapes® is the company's trade name for its custom-engineered line of precast shapes, which can minimize customers' downtime. (Courtesy: Plibrico)

“Through the years, it eventually came to be known as the Plibrico Company (PLI-able BRI-ck CO-mpany),” he said. “The founding was based upon the realization that ordinary refractory linings of fire-brick or tile of the day have problems. Contraction and expansion from heating and cooling cycles open up the joints between bricks. Corners and edges fuse and spall as they are exposed to the fire, walls bulge, and arches collapse as the individual brick loosens. Schaeffer knew that an ordinary fire brick lining construction would be no stronger than its joints, and if you can eliminate the joints, you can lengthen the life of the refractory. His ideas led to the development of today’s monolithic construction and plastic refractories. Plibrico is known for its plastic refractories, the first product that came out from the company. Since then, we’ve had several firsts throughout the industry and continue to lead the way innovating.”

## A CENTURY OF SUCCESSES

Plibrico has had many breakthroughs over the years, including the first commercially available successful plastic refractory—the industry’s first true flexo anchoring system — or being one of the first companies to develop a complete line of non-wetting monolithics for the aluminum industry, according to Taylor.

“What I’m personally proudest of is our clients’ successes, as well as the length of time a lot of our clients have been with us,” he said. “We’ve built a business over more than a century, based on trust, knowledge, and experience — qualities that create close, lasting relationships. I am also very proud of Plibrico’s resiliency and our ability to respond to industry changes ahead of clients’ needs. And I’ll tell

you, it’s because of our team of dedicated industry professionals. They drive the company each and every day, listening to our customers and making sure that we’re providing the best solution for them and exceeding their expectations.”

As Plibrico looks to the future, Taylor said the company will continue to drive its investment in innovation.

“Products, services, manufacturing techniques, and processes — all of this will be aimed at delivering cost-effective refractory solutions for clients that are easier to install, can increase service-life, and improve the mechanical properties of the product itself,” he said. “This will also be combined to support a greater dependency on organizations like ours with the knowledge and genuine technical expertise in the field of refractory.”

## INDUSTRY CHANGES

Taylor pointed out that an especially difficult challenge that faces the refractory industry is that many experts in the field are aging out, resulting in the loss of valuable knowledge, so he emphasized that it is incumbent upon his company to continue to make investments in their employees to retain and grow that knowledge within the organization, and that also involves the increase in automation that all industries continue to implement.

“We are preparing for a much more sophisticated thermal-processing industry,” he said. “Plibrico, as well as its clients, is impacted by the accelerated use of data, automation, alternate fuel sources, and artificial intelligence. Plibrico as an organization understands these changes, and the need for different products and services as a result of these — whether it’s processing temperature decreases or materials that are off-gassing as a result of alternative fuels — and is aligned with that evolution to be able to support our clients and remain the trusted source for refractory solutions.”



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