PLIBRICO MONOLITHIC LININGS FOR CYCLONE FURNACES

A Choice of Refractory Products and Installation Methods

Fortify your cyclone furnace linings for survival with any one of three torture-taming refractories. All have dramatically demonstrated their durability in this punishing environment, reflecting their high strengths, their volume stability and their resistance to abrasion.

These three rugged refractories are each specially formulated to give you a choice of installation methods. For conventional ramming, select plastic Plibrico SR-90. For conventional gunning, select Pligun Turbo-Mix. And to take advantage of advanced technology and state-of-the-art technique, select the remarkable combination featured at the right.

At incomparable installation speeds The HyRATE Process protects cyclone studded tubes with a thoroughly compacted, abrasion resistant armor

Here you see the installation in progress of a cyclone furnace lining that has no equal. It's a powerful plastic lining, and it's being gunned over the studded tubes by the unique HyRATE Process, a patented Plibrico development. Notice how little dusting occurs as the refractory flows into place, rapidly building up the protective covering.

Speed is one, but only one, of the key features of The HyRATE Process. It achieves placement rates upward of two and a half times faster than possible with conventional ramming. Linings are installed in a fraction of the time at a fraction of the labor cost: you're back in service in a hurry. At one midwest power plant, for example, nine cyclone furnaces, each 9' in diameter and 13' long, were completely lined in just 21 hours, with 57 tons of plastic gunned by The HyRATE Process.

In addition to its speed, the process builds up linings of superior integrity. That's because the plastic refractory is specifically formulated for the process, ready to gun as delivered, with no water additions to vary its consistency. So it flows smoothly, adheres uniformly, knits together and compacts so thoroughly it forms a lamination-free lining.

Combined with the integrity of a HyRATE Process lining and the speed with which it's installed are the potent properties of Plibrico HyRATE 90-S, the premier plastic for cyclone furnaces. This volume stable, high purity 89% alumina plastic is extremely dense and it's chemically bonded to deliver excellent hot strengths over its entire service range up to 3400°F. It forms a tough, durable lining that effectively resists slag and stubbornly shrugs off the most punishing abrasion.

Consider these effective alternatives

Conventionally rammed Plibrico SR-90

In this cyclone furnace, the lining is being rammed in place using Plibrico SR-90, a refractory that's very easy to work with. It's precisely sized and uniformly blended to provide a plastic with smooth consistency and excellent workability, one that's readily molded and compacted.

Plibrico SR-90 is another 90% alumina refractory suited for service temperatures from 600°F to 3400°F. Its density of 187 lb/ft³ coupled with its chemical bonding system contribute to a lining with superb strength, a lining that repels slag and is easy to clean. Here is a refractory that is unsurpassed in its proven ability to combat abrasion, demonstrating a loss of just 4.0cc in standard test procedures.

Conventionally gunned Pligun Turbo-Mix

Shown here is an installation that strikes a balance between two cost-related factors, an installation that renders excellent service under less severe operating conditions. It combines the quick turnaround time and reduced labor cost of high speed placement with the economy of a material tailored to the application.

Pligun Turbo-Mix, as you can see, quickly forms a lining enhanced by its own distinctive properties. It's a high alumina formulation (79%) that features a mullite base to minimize alkali reactions. Its density of 145 lb/ft³ and its ample strength provide better than average resistance to abrasion. And it is formulated to serve at temperatures up to 3000°F.

PLIBRICO COMPANY
1800 N. Kingsbury Street
Chicago, IL 60614
Phone: (312) 549-7014
Fax: (312) 549-0424

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