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With the recent rising cost of energy, Pyrotek has grown more concerned with how we can help you save energy and combat these rising costs. Radiation heat loss through an open door alone can cost \$4,000 per year per sq ft!¹ Below, we've outlined several solutions to help you neutralize such energy losses and even increase overall performance.

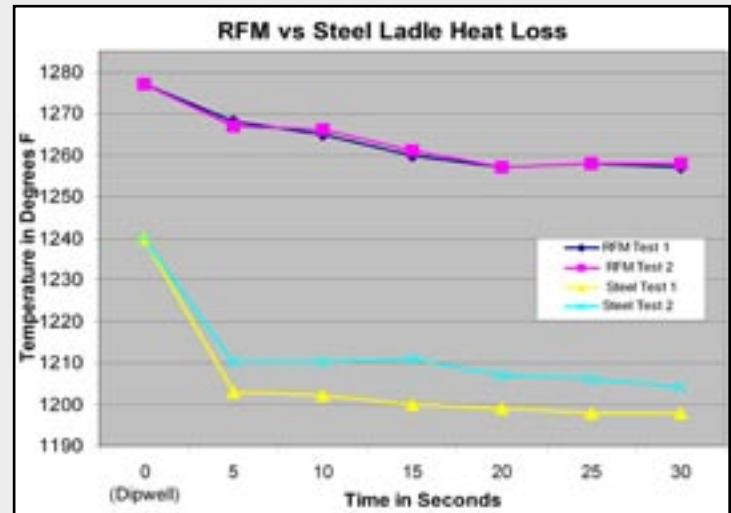
RFM™ ENERGY SAVINGS



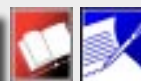
RFM™ Ladles - Pyrotek's new RFM™ ladle material can retain more heat from dip to pour than other materials. In a recent study it was found that by switching to an RFM™ ladle it is possible to lower your furnace temperature 10° to 20° F. Because

RFM™ has better heat retention, the holding furnace temperature can be reduced and still deliver the same temperature metal to the mold. This can result in saving thousands of dollars a year in energy consumption. The quality of the metal can also be improved by a reduction in holding temperature. Best of all, RFM™ will out last steel ladles with less maintenance.

This graph illustrates the temperature loss during the first 30 seconds after ladle filling. In the first 15 seconds, the RFM™ ladle shows an average temperature drop of 17° F while the steel ladle dropped an average of 35° F. The most dramatic change occurs in the first few seconds after the ladle is filled.



ADDITIONAL ENERGY SAVINGS WITH PYROTEK



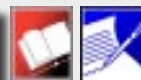
Heated Trough System - Heated trough covers reduce heat loss in metal transfer

Pyrotek's Heated Trough cover improves start-up casting by drastically reducing metal heat loss in the trough system, thus reducing energy costs through heat conservation. By using the Heated Trough System, furnace temperature and furnace gas consumption can be reduced substantially.



Thermocouples - More accurate measurement, faster

More accurate temperature measurement means more efficient energy management and usage. Pyrotek offers a complete line of thermocouple elements for temperature sensing in metal casting, heat treating and other thermal processes. Applications: • Melting and holding furnaces • Heat treating furnaces • Metal transfer systems • Metal degassing systems • Sand and permanent mold foundries • Die casting • Investment casting



Ropes and Tadpoles - Better insulation for furnace door seals and gaskets

Pyrotek offers a wide range of asbestos-free ropes and tadpoles. **Correcting a 1/4" gap around furnace doors can save \$450,000 per year.**¹ Proven to provide optimal seals, Pyrotek ropes and tadpoles minimize energy loss. Specialized designs can be fabricated to meet exact requirements of temperature resistance, size, density and wear resistance. Applications: • Furnaces • Crucible lids • Collector bars • Burners • Flues • Pot lids • Ladles • Doors • Side mains



Inconel Foil Covers - Multiple uses for reducing heat loss

Pyrotek Inconel Foil Cover's heat-resistant foil prevents a measurable loss of heat. They are custom-designed to fit any area, including uneven trough sections or other molten metal containers and can be used over troughs and filter boxes.

Applications: • Trough sections during metal conveyance • Trough bake-out with direct flame
• Filter boxes • Any other areas involving direct flame



Wollite - Excellent castable insulation

Wollite material is a solid, light weight mineral foam which is stable during its preparation and during its subsequent curing and drying. Because of the foam properties, it is well suited for casting complex shapes and parts.

Applications: • Secondary insulation • Foam blocks • Sampling spoons



Fiberseal Fabrics - High temperature insulation fabric

Pyrotek offers a wide range of high-temperature fabric materials with multiple energy saving uses.

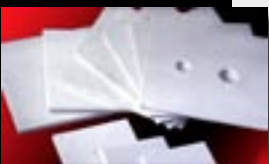
Applications: • Wind socks • Gaskets • Combo bags • Filtration products • Custom safety apparel • Seals • Insulation • Curtains • Blankets • Heat treating pads



M-Series Boards - Compressible insulating boards

Pyrotek offers a range of asbestos-free boards suitable for applications requiring a compressible board. Boards featured in the M-Series offer excellent insulating characteristics.

Applications: • High temperature gaskets • Furnace covers • Trough lining • Non-conductive insulation • Lid gaskets • Siphon gaskets • Ladle linings • Tundishes • Mill board substitute



Microporous Board - Microporous insulating board

Microporous thermal insulation board has excellent thermal and mechanical properties. It is flexible, resistant to humidity, strong and has extremely low thermal conductivity.

Applications as backup insulation for: • Troughs • Filter bowls • Furnace linings • Transfer crucibles • Door insulation



Board Lined Holding Furnaces (Holimesy Style)

Holding furnaces are more energy efficient when lined with calcium silicate board. We offer a complete line of materials for furnace repair or rebuild to maximize energy efficiency.

Please contact your local Pyrotek sales engineer for help with implementing these solutions and maximizing your energy savings. Also, visit our website for further information on how Pyrotek can help you save on energy costs.

www.pyrotek.info/foundry

¹ from Signature Energy Management