



Case History

Application: Ladle Preheat Cover

Operating Temperature: 2850°F

Emisshield® Product Used: Emisshield® ST-2 (US Patent 6,921,431)

Problem: An installer of castable steel ladle linings desired to reduce the amount of energy required to dry out and sinter the covers. The ladles were laid on their sides for drying. A gas burner with an automated controller was placed at the center of the castable-lined cover. Fuel usage was monitored.

Results Using Emisshield® ST-2: Emisshield® ST-2 was applied to the cover refractory. In this shop a 40 hour schedule was used when both the barrel and working lining were replaced. This ensured adequate time to safely remove water from both refractories. The use of the coating on the cover reduced energy loss through the cover, significantly. Fuel usage to dry out ladles using this schedule was reduced by 11.5%. A faster 32 hour schedule is used when only the working lining is replaced. Use of a coated ladle cover reduced the energy required to run this schedule by 21.3%. The increased fuel savings experienced with the shorter schedule was attributed to the fact that the cover refractory had less opportunity to absorb heat.

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