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MELTING HOLDING

APPLICATION INFORMATION



FURNACE INFORMATION

Furnace type: Melting Holding, 60 MT

Fuel type: Gas

Operating Temp: 1100 °C (2010°F)

APPLICATION INFORMATION

In February 2024 Furnace #2 was coated with Emisshield to examine its impact on reducing aluminum oxide (Dross) formation and save energy. The furnace was loaded with about 50 MT of molten aluminum and heated up. A comparative analysis was performed by third party testing by Thermwin Technologies Pvt. Ltd. to measure the drop in molten aluminum temperature in Emisshield-coated Furnace #2 against a similar furnace (Furnace #1) without Emisshield coating.

CUSTOMER

Vedanta Aluminum Ltd. -
Jharsuguda, Odisha

APPLICATION

Furnace - Melting Holding

SUBSTRATE

Ceramic fiber
-about 30 years old

RESULTS

EMISSHIELD BENEFITS

Heat loss reduction: there was a saving of 12°C temperature increase in the hot metal temperature in the Emisshield coated furnace#2 along with the 9.3 MT higher metal charge compared to the uncoated Furnace#1. Thus there was a significant energy savings along with a monthly production increase valued at approximately \$500,000/month.

Dross Reduction: Data Collected for the month of Jan for both coated and uncoated furnace shows a reduction in dross generation of 9.92% (115.9 MT to 104.4 MT) in Emisshield coated Furnace#2 even with higher FG production of 545