

Case Study #9

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The following series of slides document the results of using Redux EF40L fluxes at 15 International Foundries to eliminate slag buildup on refractory walls of coreless induction furnaces, extend refractory life and clean ladles. Additional details on increases in refractory life are presently not available because of the COVID-19 pandemic.

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Case Study 9 - REDUX EF40L
Objective: Clean slag build-up from
Coreless Induction furnace walls



REDUX EF40L at International Foundry "I"
Producing Grey Iron Castings



Redux EF40 Test Conditions at Gray Iron Foundry I

- **Trial of Redux EF40L was for a 1 Metric Ton coreless induction furnace**
- **The charge consisted of 15% Borings, 40% Scrap, 15% Pig Iron and 30% Gates and Risers**
- **Redux usage was 0.05% (500 grams)**
- **Melting time was is 60 minutes**
- **Redux was added after 25% of the charge was added to the furnace**
- **Prior to using Redux, the furnace was full of built-up slag**
- **After just one treatment, approximately 80% of the furnace was cleaned of slag buildup**
- **The same effect of Redux treatment was found on the next 7-8 heats and Foundry I was very satisfied with the performance of Redux, saving labour by reducing scraping of build-up on the refractory lining**



Summary of Redux Trial at Foundry I

Prior to using Redux



Entire furnace before using Redux was caked in slag)

After using Redux



After 8 Redux treatments, 90% of furnace was clean

