

Hot Briquetted Iron

The Ideal Steelmaking Raw Material



THE USE OF HBI IN THE BOF

HBI is a manufactured product with guaranteed and consistent specifications.

HBI Provides an Optimal BOF Charge Due to:

- Low levels of residual elements.
- Bulk density of 2500 - 3300 kg/m³ (156 - 206 lbs/ft³) is higher than any type of scrap.
- Same metallic yield as hot metal.
- More predictable mass and heat balances.

HBI — An Excellent Trim Coolant Due to the Following Characteristics:

- Free-flowing from overhead bins.
- Well defined physical and chemical properties.
- Maintains steel bath composition.
- Easily charged from overhead bins.
- Rapid penetration of slag.
- Reduces slag volume when used instead of fluxes.



Other Advantages:

- Protects bottom by feeding charge pad before scrap charge; therefore, less refractory damage occurs.
- Can be fed into charge pan to adjust final weight to avoid charge delays.

DEFINITION OF HBI

A compacted form of direct reduced iron (DRI) produced from iron ore fines, pellets, or lumps that are densified following reduction at a temperature greater than 650°C to have a density greater than 5000 kg/m³, which makes it more resistant to reoxidation and fines generation.



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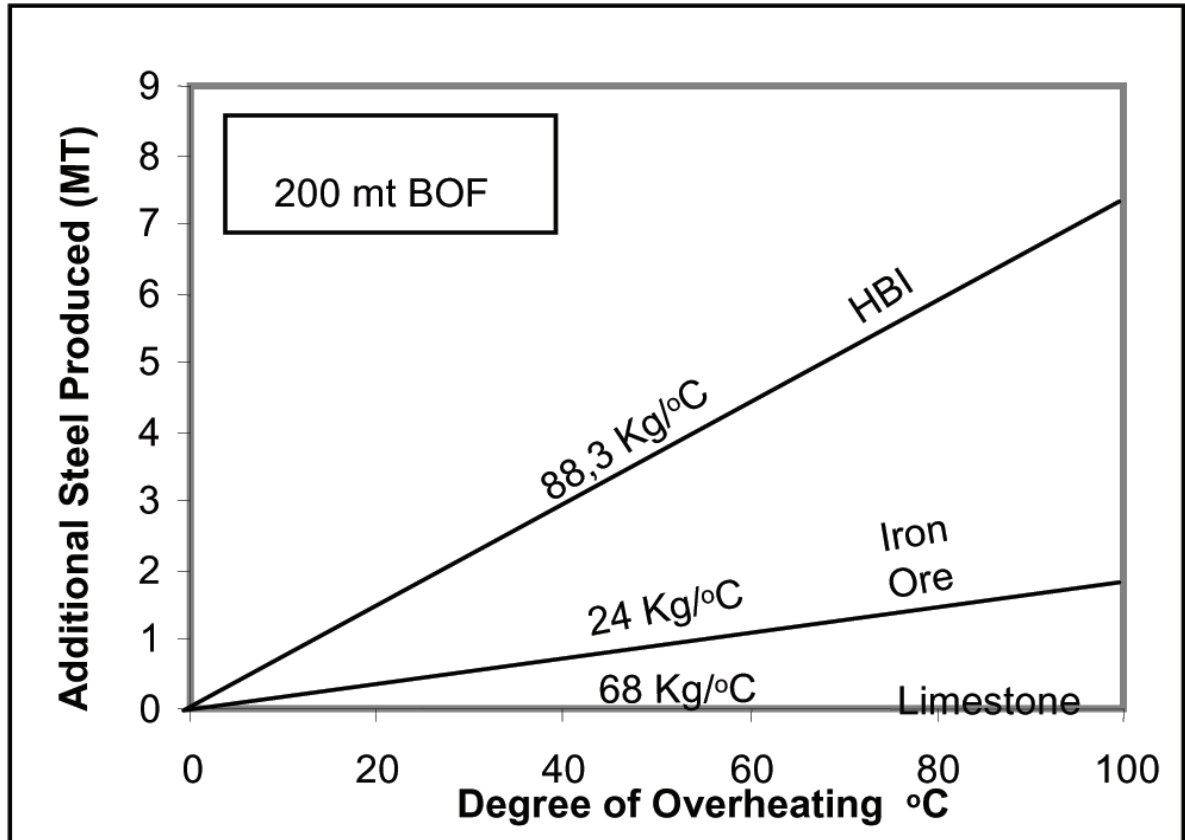
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Results of Charging HBI as Part of the Solid Charge Mix

ADDITIONAL CRUDE STEEL FOR DIFFERENT COOLANTS



The use of HBI as a part of the solid charge mix is recommended for the following situations:

- When the proportion of hot metal and scrap used results in overheating at the end of the blowing process (the use of HBI as a coolant produces the desired temperature without a cooling process).
- When the addition of fluxes or iron ore pellets is utilized to meet the energy balance (HBI can be used as a replacement).
- When the amount of hot metal needs to be increased.
- When scrap availability is an issue.
- When lower sulfur content of the charge material is required.
- When lower residual content is required.