



THERMACT-BFTM

Multifunctional Catalyst



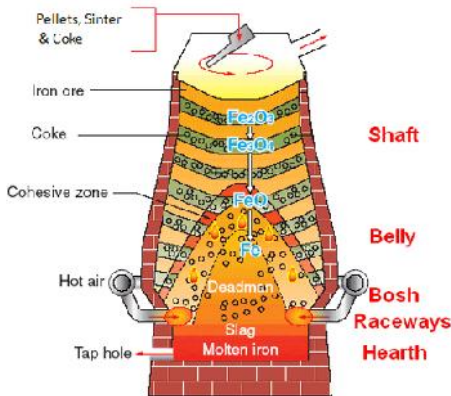
ABHITECH ENERGYCON LIMITED

Introduction

The heart of Steel making is a Blast Furnace.

The function of a Blast Furnace is to reduce and convert iron oxides into liquid iron called “Hot Metal” or “Pig Iron”.

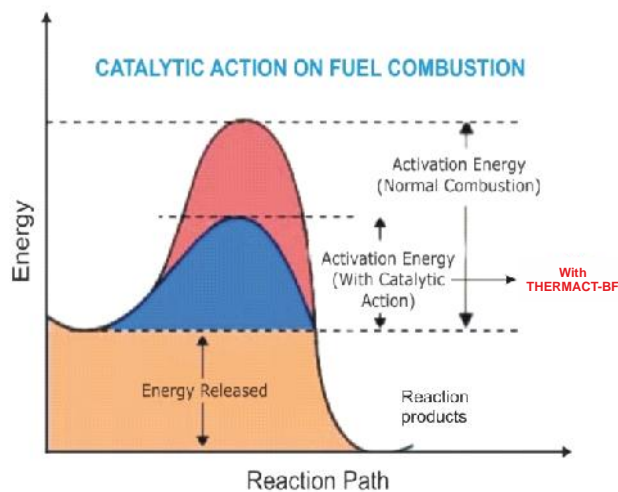
What is THERMACT-BF ?



THERMACT-BF, a multifunctional catalyst developed in association with IIT, Bombay, is added to fuels used in a Blast Furnace.

It contains specially formulated catalysts which are non-hazardous, and environmental friendly and safe to use.

Working Principle of THERMACT-BF



THERMACT-BF reduces the activation energy required for various reactions, such as combustion of Coke & reduction reactions.

Hence,

- Combustion of Coke starts at a lower temperature.
- Reduction reactions of Iron ore with Coke are initiated at a lower temperature.
- The rate of Reduction of Iron ore is increased.

Catalyst in THERMACT-BF also converts inherent moisture in coal or coke to combustible by-products.

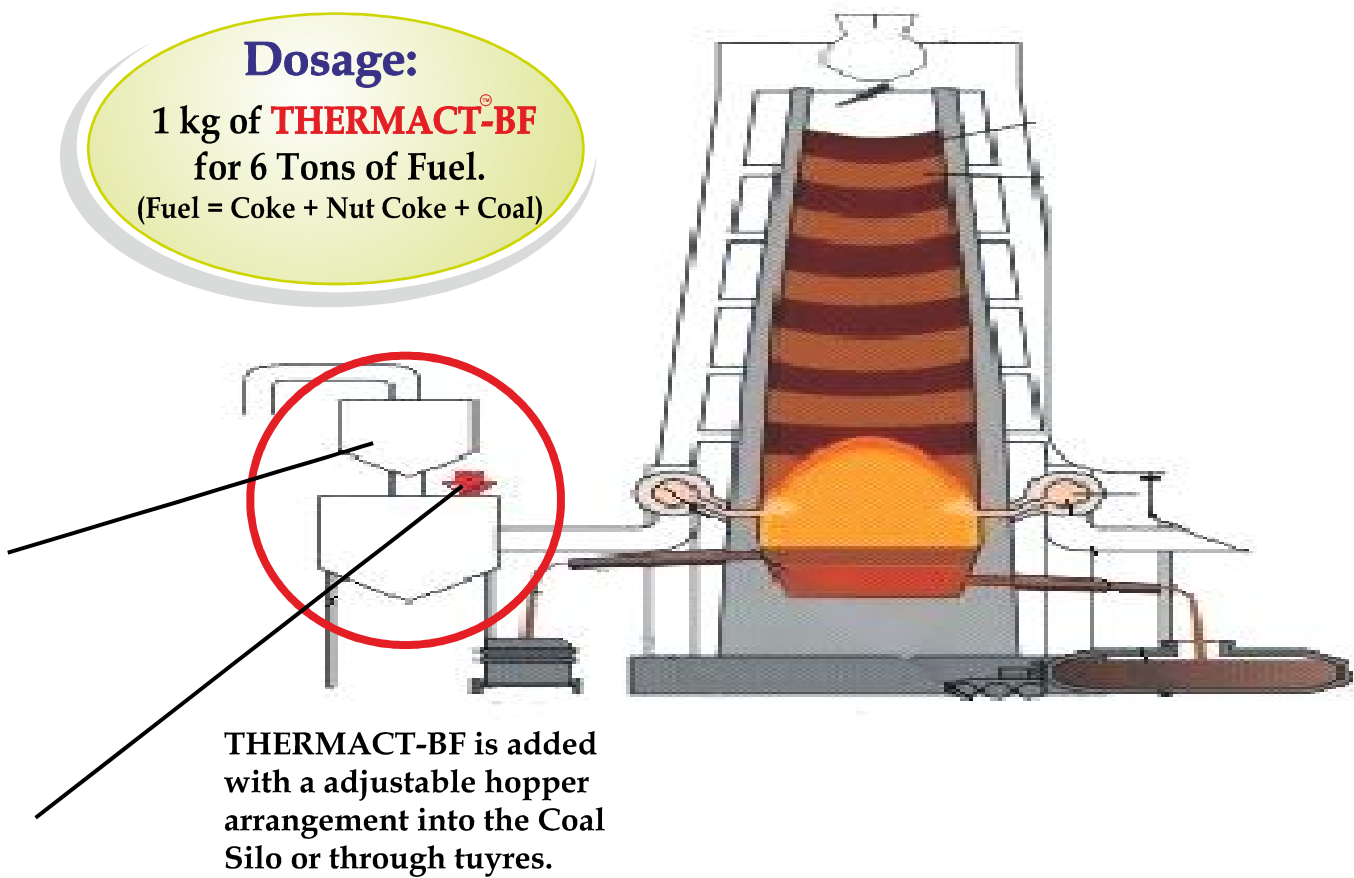


Benefits of **THERMACT[®]-BF**

Effect	Benefits
Improved temperature profile in Blast Furnace	More stable operation of Blast Furnace Possibility of increasing Steam / Coal Injection
Increased rate of reduction of Iron Ore	Reduced cycle time & hence increase in through-put
Coke combustion faster and at lower temperature	Reduced energy input Reduction in fuel or Coke rate / ton of Hot Metal
No change in composition of gases evolved	THERMACT-BF is safe for use and no harmful gases evolved.
Converts inherent moisture to combustible by-products	Possibility to use high moisture Coke.

Reduction in coke or fuel rate contributes to ‘Green Environment’ by reducing emissions.

Schematic Diagram of **THERMACT[®]-BF** Dosing



The required quantity of THERMACT-BF is dosed through a hopper mounted on the roof of the silo storing pulverized coal or through tuyres with a suitable mechanism.

Advantages of **THERMACT®-BF**

- *More stable operation of Blast Furnace*
- *Reduced cycle time and hence increase in through-put.*
- *Possibility of increasing Steam / Coal Injection*
- *Possibility to use high moisture coke.*
- *Reduction in fuel or Coke rate / ton of Hot Metal.*
- *THERMACT-BF is safe for use and no harmful gases evolved.*



Abhitech's Global Presence



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