

# **Impact of feed materials & Process parameters on Pellet Quality**

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## **Abstract**

Quality parameters such as RDI to meet the stringent requirement of Corex and BF is indeed a challenging one. This property is affected by variety of factors, which are subtle. Feed materials and process parameters have been found to play a major role in determining the RDI characteristics as well other quality parameters such as tumbler index, cold crushing strength and swelling etc.

This paper tries to go deep into the pelletisation concept, the characteristics of raw materials such as alumina content, the fineness of grind, moisture content etc. and the process parameters such as balling, Ignition time and Ignition furnace suction profile etc.

The effects of alumina content and the fineness of grind have an effect on the cold crushing and strength. Increase in alumina content decreases the crushing strength for the same firing temperature, whereas increase in fineness of grind has an increase in crushing strength at the same firing temperature. RDI is also influenced by the alumina control as well as the ignition time.